

AIRFIX magazine

MARCH, 1967

FOR PLASTIC MODELLERS

2s
MONTHLY



**IN
THIS
ISSUE**

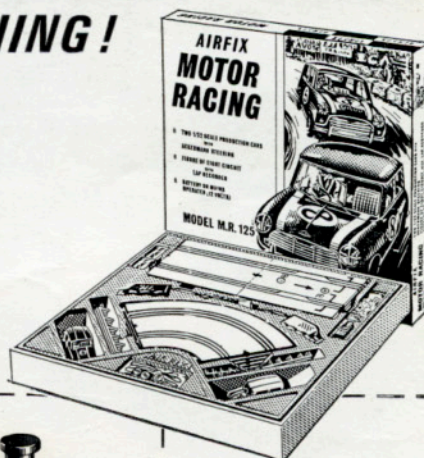
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March, 1967



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AIRFIX magazine

AIRFIX

FOR PLASTIC MODELLERS

magazine

Volume 8, Number 7

March, 1967

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COVER PICTURE

Though Britain had an unseasonably mild winter, transport authorities in Scandinavian countries had their usual battle with the elements. This picture, taken in Northern Finland, shows a Vanaja N-69 E/4300 with snowplough equipment clearing a main highway near the Arctic Circle. The Vanaja is powered by a British AEC diesel engine.

(Illustration by courtesy of AEC Ltd)

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Editor.....CHRIS ELLIS
Art Editor.....MICHAEL ROGERS
Advertisement Manager.....PETER MACER

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NEWS FROM AIRFIX

The world's greatest value in construction kits

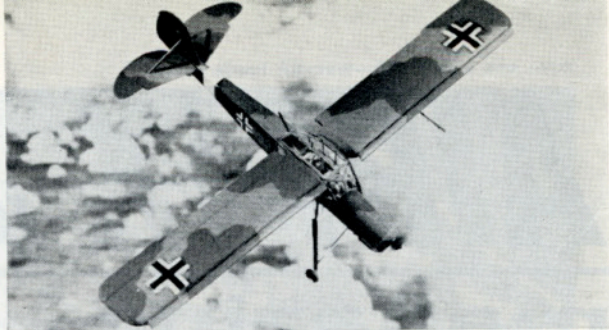
- Northrop Black Widow
- Fiesler Fi 156 Storch
- Boeing Clipper
- 1916 Mark I Tank
- Triumph Herald
- 1967 full colour Airfix Catalogue



The Airfix Black Widow finished as Lady in the dark.

ONE of the most sinister looking aircraft from the second world war, the aptly named Northrop Black Widow, forms the subject of the latest Airfix series 4 1:72 scale plastic construction kit. The Black Widow was the first US aircraft to be designed from the beginning as a night fighter and it was the standard USAAF aircraft in this role at the war's end. Incorporating most of the lessons learnt in the early years of World War 2, the Black Widow, or P-61 as it was designated, was a big machine with heavy armour and armament, good radar and long endurance.

No less than 115 parts are provided in the Airfix kit to do justice to this aircraft and details include crewmen, cockpit fittings, intake grilles, radar aerials, navigation light



New Airfix Fiesler Storch comes in kit form for 2s 3d.

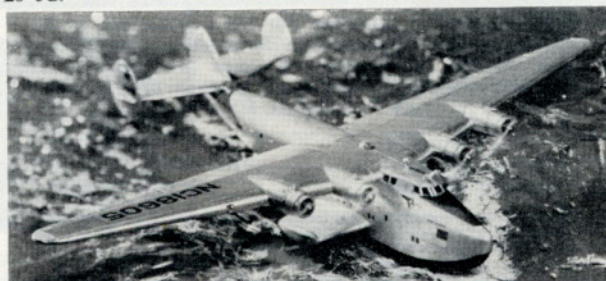
transparencies, hinged ailerons, working elevator, fully modelled Pratt & Whitney Double Wasp engines, and all the usual Airfix features.

Conversion enthusiasts will be pleased to find that the kit includes optional parts for the P-61A without a turret or the P-61B night intruder with a revolving mid-upper turret and pylons for a load of bombs and drop tanks, all of which are provided in the kit. Optional transfers for both versions are provided, those for the P-61B depicting *Lady in the dark* which shot down the last Japanese aircraft before the cessation of hostilities in the Pacific. The kit costs 7s.

STARKLY utilitarian, but by far the most efficient observation post and communication aircraft used by any combatant in the second world war, the Fiesler Fi 156 Storch is the subject of the latest 1:72 scale Luftwaffe model in the Airfix range. The aircraft's spindly 'insect' appearance has been beautifully captured in this new kit and, as with the Black Widow, Airfix have included conversion parts and optional transfers allowing either of two Storch versions—the Fi 156A or Fi 156C—to be completed by the modeller.

Details in the kit include D/F loop, radio aerials, landing light, oil cooler, cabin interior, a choice of two cockpit roofs according to version selected, choice of tailwheel or tailskid, separate Handley Page slots for the wing leading edges, finely textured 'fabric' surfacing on the wings, tail, and control surfaces, and panel markings on the fuselage. There is a pilot figure and a staff officer passenger while the wing and undercarriage struts are finely proportioned to give the characteristic Stork-like stance of the full-size machine.

Storches were used on all fronts by the Germans and a number of captured machines were also pressed into service by the Allies—we illustrated one such aircraft in last month's Photopage. In post-war years they continued in service with some air forces and a number are still in use today. The Airfix kit of this pioneer STOL aircraft costs 2s 3d.



Dixie Clipper, the Pan Am version of the new Airfix Boeing 314 1:144 scale kit.

AIRFIX magazine

BOEING'S classic trans-Atlantic flying boat design, the Clipper, built for Pan American World Airways in the pioneering era of the 'thirties makes a worthy new addition to the Airfix range of 1:144 scale aircraft kits. Designed to Pan Am's requirements for an air liner capable of crossing the Atlantic on a regular commercial service, the Boeing 314 Clipper was designed in 1937 and the first aircraft was launched at Seattle in May, 1938. With a wingspan of 152 feet, a length of 106 feet, and a weight of over 80,000 lb, the Clipper was the largest practical commercial aircraft ever designed at that time.

By mid-1939 the Clippers were in service on the Atlantic run carrying first mail and then passengers on a regular schedule. The outbreak of war in Europe upset traffic, however, and very much increased the demands on the airmail service. Six more Clippers were built, the 314As, and three of these, named *Berwick*, *Bangor* and *Bristol*, were handed over to BOAC.

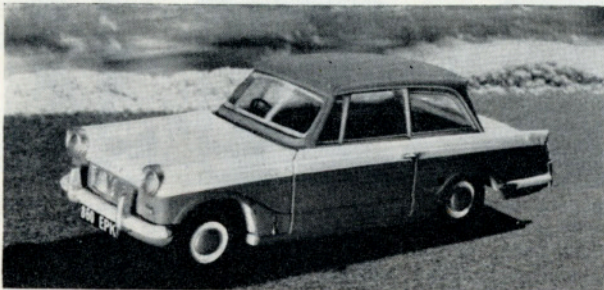
The Airfix kit, which has 78 detailed parts, can be completed to depict two of the most famous Clippers, *Dixie Clipper* of Pan Am or *Berwick* of BOAC, transfers being supplied for each. It costs 7s.

MUCH in demand by military enthusiasts and wargamers to go with recent Airfix releases of World War 1 OO/HO scale soldier sets has been a suitable tank of the period. Airfix have now obliged with a fine replica of the famous Mark 1 Tank of 1916, the first type to be produced in quantity and the first tank ever to see action.

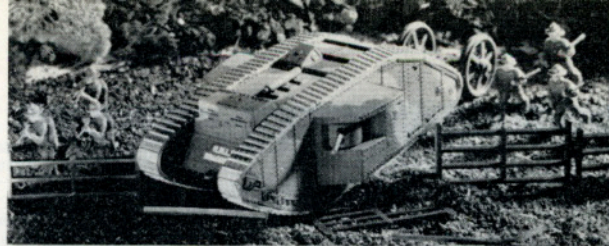
Tanks were evolved as a means of breaking through the heavily defended lines, dominated by the machine gun, which had resulted in stalemate on the Western Front for much of the first two years of the war. From the experimental 'Little Willie' and 'Mother' designs came the lozenge shaped Mark 1 and it was this tank which started a new era in warfare when it went into action on Sept 15, 1916.

The Airfix model has 49 parts and measures approximately 5½ inches overall including the wheeled steering 'tail' which was a feature of the early vehicles. The tail wheels rotate and other working parts include the 6 pounder guns in the sponsons, which are pivoted to train fore and aft in their mountings. To 1:76 scale, the kit of parts costs 2s 3d.

NEWEST 1:32 scale car kit from the Airfix stable is a neat replica of the world famous Triumph Herald, one of the best known cars built in Britain and one with several distinctive design features including a separate chassis and independent suspension. More than 70 parts go into the



Latest Airfix 1:32 scale car kit is for a Triumph Herald March, 1967



The new Airfix Mark 1 tank rumbles into action.

model and details include the chassis parts, suspension units, a complete dummy engine, hinged opening bonnet, seats and interior fittings, controls, and steering wheel.

Moulded throughout in white plastic, and complete with window and lamp transparencies, the Airfix Triumph Herald kit costs 3s 6d.

MORE than 250 Airfix constant scale construction kits including aircraft, ships, figures, cars, tanks, locomotives, and lineside accessories are illustrated in the fifth edition of the Airfix Catalogue which has just been published. Bigger than ever before, the catalogue runs to 48 pages and contains descriptions of each model available together with details of some new kits which are to be released in the coming months. For the first time ever, full colour has been used throughout and the illustrations are from actual photographs of models. In addition to being an essential reference book for modellers, therefore, the new catalogue will be useful as a colour guide for painting. The fifth edition Airfix Catalogue can be obtained from Airfix kit stockists.

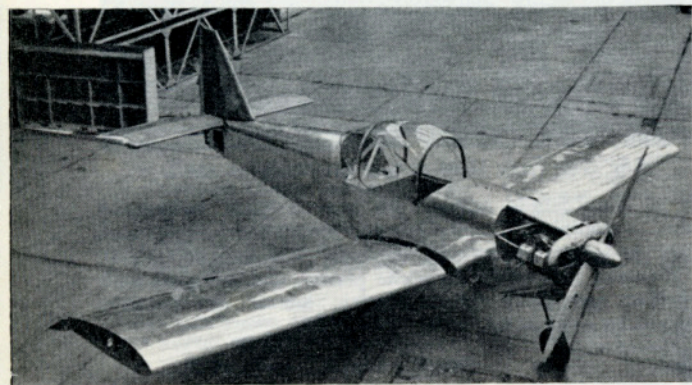
ARE YOU A KIT CONVERTER?

We have many letters from readers requesting back copies of **AIRFIX MAGAZINE** containing conversion articles. Back copies of some issues are still available for the benefit of readers who may have missed or mislaid earlier editions. For example, here are some of the practical articles which have appeared.

1964: November—Centurion conversions
1965: June—Hart into Hector. **September**—Jeep conversions. **October**—Churchill assault bridge. **1966: March**—Firefly Profile. **April**—Dinah conversion. **June**—Half-track conversion. **July**—RF-4C Phantom conversion. **August**—Catalina conversions. **September**—Scout into Wasp. **October**—King Tiger and P-51C Mustang. **November**—Sturmtiger conversion. **December**—Me 262 conversions. **1967: January**—Sea Devon, Sea Otter and JS2.

Would readers please note that all issues not listed above are now out of print and can no longer be supplied.

Back copies cost 2s each (including postage) for all copies up to and including September, 1966. From October, 1966, onwards the cost is 2s 6d an issue, post paid. Please address all requests for back copies, together with your remittance, to our circulation department at **SURRIDGE DAWSON & CO (PRODUCTIONS) LTD, PUBLISHING DEPT, 26 ABERDOUR STREET, LONDON SE1**. Note the new address.



This photograph of the Mitchell Proctor Kittiwake in the final stages of assembly shows the aircraft to have, apart from its utilitarian untapered wing, a very attractive profile. The blown bubble canopy gives an excellent all-round visibility. Aluminium sheet covering comes from stocks intended for the TSR-2!

IN these days of big business and most aircraft orders coming from Government sources or from the big airlines the small man has little chance of success. Or so it would seem. Late last year the British public cheered to the news of Britten-Norman Limited and their unique Islander short range transport . . . from what I have seen recently they can get ready to cheer again as another small firm of aircraft designers has a product that should meet a need in the light aircraft market.

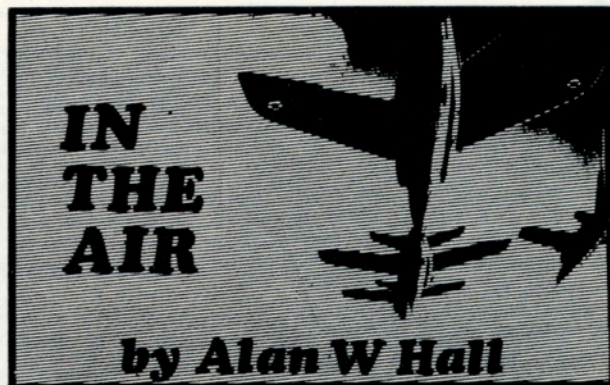
Mr Kit Mitchell and his associate Roy Proctor have designed a new light-weight touring and glider tug aircraft which will fill a gap in the sporting aircraft market that has as yet had few contenders.

In just over two years these two adventurers have not only designed a simple aircraft which they have called the Kittiwake but they have raised the cash for the venture and, above all, built most of the prototype in *their spare time*.

Kit Mitchell, to whom I spoke, is 29. He now works as a scientist in the Royal Aircraft Establishment's Structures Department at Farnborough where he is employed on studies of gust response. His colleague, who he first met at the British Aircraft Corporation's Weybridge works, Roy Proctor is now Assistant Technical Sales Manager for the BAC-111.

Kittiwake was designed and built after Kit had taken third prize in the Rollason Midget Racer Design Competition with his 'Scamp'. It was a fast aerobatic aircraft which could also be used for touring purposes and received high praise from the judges. Roy Proctor, who is also the chairman of the Flying Committee at the Lasham Gliding Centre saw the design, liked it and approached Kit with the idea of designing and building a simple and cheap glider towing aircraft. Their combined knowledge of the market proved that a glider tug design on its own saw little chance of large scale production as the demand was at the most for 30 aircraft of this type in the UK and there were few chances of successful selling abroad unless a much larger concern could be interested in taking the production rights. It was therefore decided that Kittiwake should be built as a touring aircraft in either single or twin seated version but with an easy adaptability for glider towing.

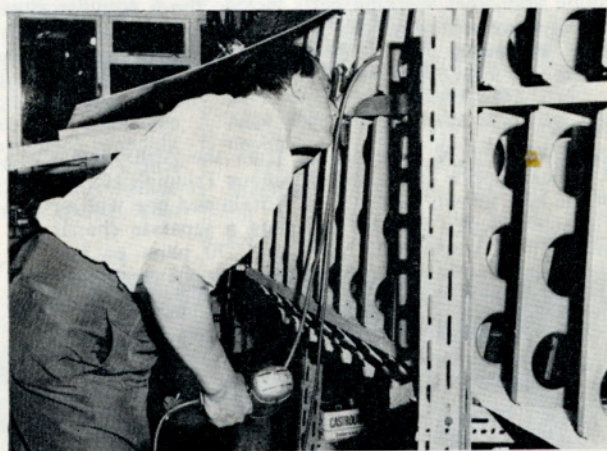
The money needed, about £1,500, to design and build the prototype was raised and the drawings, of which there are 60 for the single seat version alone, were completed. Construction was started in a small garage by Roy Proctor in April, 1965, using the simplest of tools and even scrap materials.



It is ironic to note that much of the metal in the Kittiwake prototype comes from stocks of new aluminium sheet of the correct gauge needed that were originally intended for nothing less than the TSR-2. BAC was forced to declare their stocks of metal bought for this project as scrap and Mitchell and Proctor were able to buy the material at a third of its value.

Those who know anything about aircraft construction will know that most of the complicated modern aircraft are built in jigs so that the ribs of either wings or fuselage are correctly mated to the outer metal skin. Kittiwake's jigs were made out of Dexion and the most complicated tools used were a pair of tin snips and a handyman's electric drill. So simple and robust is the construction that it has been stressed to 6G and there was only a quarter of a degree of unwanted twist on the first wing when it came out of the jig.

With the fuselage and wings already completed the partnership was approached by the British European Airways Engineering Department to build a Kittiwake for their own use as a glider tug. Being good business men, the opportunity was taken to make the proposition that BEA should help with the completion of the prototype and arrangements were made with the Corporation engineering staff so that BEA apprentices could work on the construction as part of their training. The part completed prototype was moved to BEA's Engineering Base



How to build a prototype aircraft in your garage! Roy Proctor working with a handyman's electric drill on the construction of one of the Kittiwake's wings. The simple Dexion jigs, which can be seen in the foreground, were ample to construct the aircraft's main components without difficulty.

at London Airport and the apprentices have completed the tail unit, flaps, ailerons, engine mounting and have almost finished the final assembly.

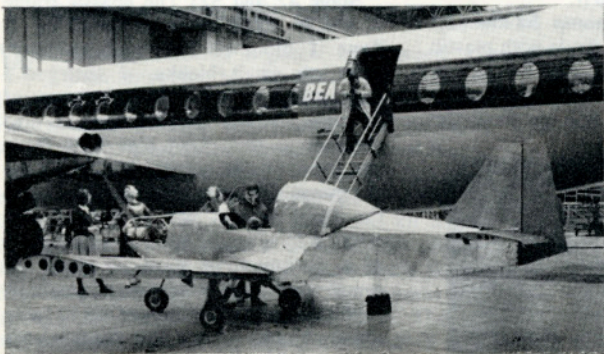
Kit Mitchell told me that there was much more work in building an aeroplane than he had at first envisaged. The design side alone and the approval of the Air Registration Board (who were very helpful) was only part of the job. The assistance given by BEA has been most welcome and if things go as planned the first flight should take place at Lasham sometime in early March.

The first Kittiwake will be registered G-ATXN. Although it may not have its final colours painted for the first flight it will eventually have all lower surfaces in a light grey, fuselage top decking aft of the cockpit in white, a black cheat line and a black anti-dazzle panel on the nose. Its dimensions are: span, 24 feet, length 19 feet 8 inches, and height 7 feet 8 inches. Power will be supplied by a Rolls-Royce-built Continental O-200A—a four cylinder engine which has a proven reliability and will give adequate performance for the single seat glider towing capability of the Kittiwake where a good climb to height in the minimum time is required.

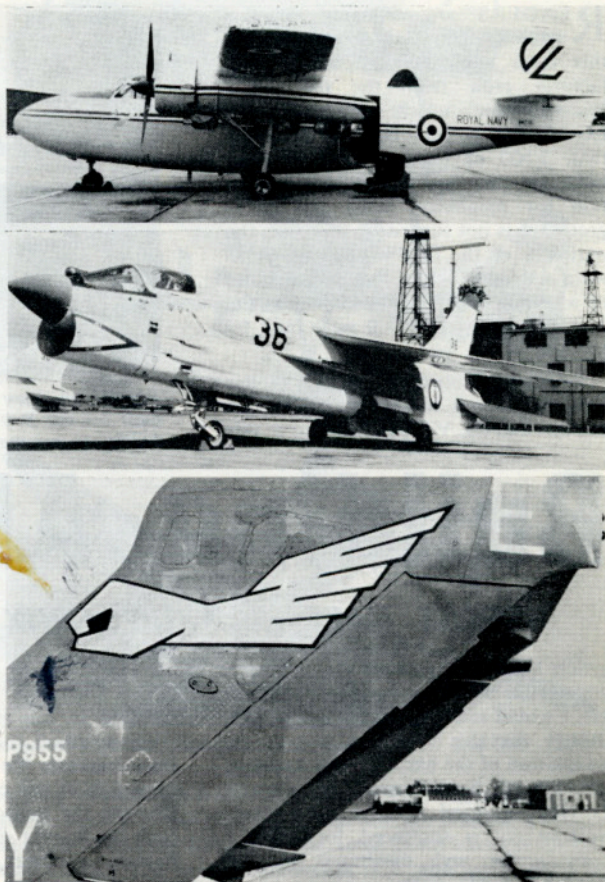
What is the future of this interesting venture? At the present time the two-seat Kittiwake has few, if any, competitors in its class anywhere in the world. Its nearest rival was the Victa Air Tourer from Australia, but as this company has ceased production the only other near rival is the Beagle Pup and that has an estimated price about £700 extra.

The commercial exploitation of the project will have to depend on a fairly large aircraft manufacturer with the facility of large scale production taking the aircraft under licence production. Both Mitchell and Proctor have neither the capital or resources to build Kittiwakes in the quantity that they envisage will be the eventual market. For example the Cessna 150, which comes almost within the same performance bracket, sold 3,000 last year and the Kittiwake could easily do the same.

Mitchell and Proctor have shown that their design is a very attractive proposition in a market which needs an aircraft of this nature, simple to build, easy to maintain and in every way suited to touring, competition flying, and even training. Although both men are very reluctant to talk much about the future, as they want to make sure that their aircraft is all the design says it is, they are willing to say that several companies have already expressed an interest in production. Let's hope that their initiative is blessed with the success it deserves.



Mighty and midget. The Mitchell Proctor Kittiwake in company with a BEA Vanguard in the Heathrow Engineering Base where final construction and assembly has been carried out by BEA apprentices. Production arrangements have yet to be finalised. Some idea of the Kittiwake's diminutive size comes from the man standing by the cockpit.



Navy mixture, top to bottom: Since we visited Lee-on-Solent's opulently finished Sea Devon two months ago RNAS Yeovilton has provided this photograph of one of their two Sea Prince 'Barges', WM739, which has recently undergone a face lift. Light grey and white main colours with dark blue cheat lines, codes and tail emblem. The Heron emblem is in gold with a red fish in its beak. Recent Yeovilton visitors were these F-8E(FN) Crusaders of the French Aeronavale. Colour scheme is basically similar to US Navy standard with the addition of French Navy roundels. New markings for No 899 Squadron, Sea Vixen XP955 coded 135 seen at RNAS Yeovilton this month sports a new version of the squadron's 'mailed fist' insignia on the fin and rudder. (Ministry of Defence photos.)

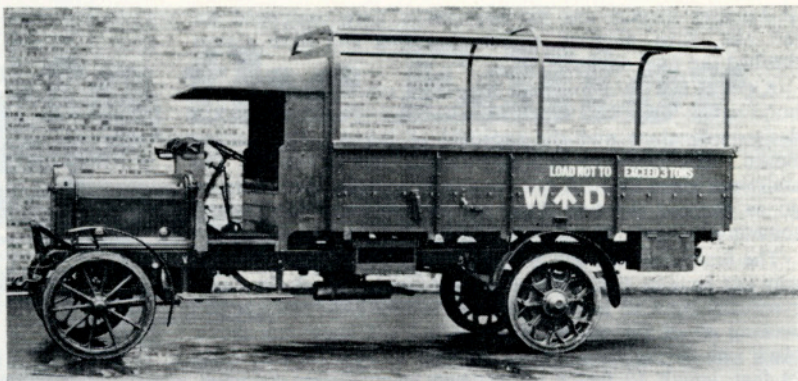
NEW CATALOGUES

CORGI and Lesney have each sent us copies of their 1967 catalogues listing their model ranges and illustrating all their models in colour. Each catalogue includes a check list and shows some of the new releases scheduled for the coming months. Priced at 4d and 3d respectively, the catalogues are available from most model car stockists.

Military modellers will be interested in a new catalogue just published by the importers of the Austrian Roco Minitanks HO scale models. It lists several interesting new releases scheduled for 1967 and illustrates these along with the already large existing Roco range. The catalogue is available for 6d from the importers, Model Hobby Products Ltd, Mebro Works, Cuckoo Hall Lane, London N9, to anyone sending a large stamped self addressed envelope.

READERS are probably familiar with the story of AEC and how this large commercial vehicle manufacturer grew from the factory at Walthamstow which produced the LGOC B Type bus. By 1913 no fewer than 2,500 of these buses had been built and they had an enviable reputation for reliability. With this background it is not surprising that with the outbreak of the first world war, AEC were entrusted with the manufacture of a military lorry. It is known as the Y Type and over 10,000 were built by the end of the war.

Understandably there are many similar looking features in the design of both the bus and the Y type lorry and in this



Famous on every front during the 1914-18 war, over 10,000 Y type 3 ton lorries were built for the British army, and many were used in post-war years by everyone from LGOC to private hauliers. Army finish is khaki with white lettering. (AEC photo).

Building AEC Y Types

LORRIES MADE FROM THE AIRFIX 'OLE BILL' BY NORMAN SIMMONS

article I would like to describe a simple conversion based on the Airfix B Type kit. I would make it clear at the outset, though, that this is intended as a simple adaptation of the basic kit and a certain amount of licence must be allowed bearing in mind that in some cases authenticity is sacrificed for ease of construction and maximum use of available Airfix parts.

The first point to note is that the wheelbase of the Y Type chassis is longer than that of the B Type. The chassis as modelled in the Airfix kit has a 12 ft 10 $\frac{5}{8}$ inch wheelbase, while that of the Y Type was 14 ft 2 $\frac{3}{8}$ inches—a difference of 1 ft 3 $\frac{3}{4}$ inches or nearly $\frac{1}{2}$ inch in 1:32 scale. Therefore, cut through the chassis side members, parts 24 and 25, at a point immediately in front of the small raised rib designed to take the front strut of the fenders, and cement a piece of $\frac{1}{2}$ inch \times $\frac{1}{4}$ inch

balsa as an insert at this point.

The floor, part 5, will not of course be used in this model so the chassis cross members should be carefully cut from beneath the floor moulding and cemented to the chassis side members. Remove the raised number plate from both the bonnet sides and make up the bonnet assembly, parts 28-33, and cement this to the chassis together with the driver's platform, part 27. The dashboard should be increased in height and width—my estimate is 1 $\frac{1}{4}$ inch \times 1 $\frac{7}{8}$ inch—and the best way to do this is to trim the edges of the Airfix dashboard, part 29, and cut a piece of 1 $\frac{1}{4}$ inch \times 1 $\frac{7}{8}$ inch 40 thou plastic card to fit round it.

The characteristic hump on the top of the radiator can be made with plastic putty. Plastic putty can also be used to fill in the oval depressions on the sides of the radiator. You will see from the

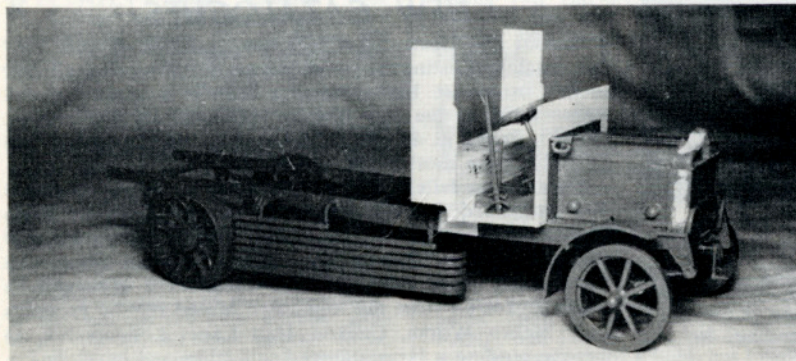
photographs that the radiator sides are quite smooth on the Y Type. After the putty is thoroughly dry the hump can be carefully carved, filed and sand-papered to shape and topped with the filler cap, part 34.

Construction of the chassis can proceed much as described at stages 37-44 and 50-56 of the Airfix instruction sheet but there are one or two important alterations as follows:

Stage 41: Because of the lengthened wheelbase, the rear end of the transmission shaft, part 73, needs to be lengthened. Material for this can come from the two pins that normally fit part 73 to the floor.

Stage 42 and 52: The chassis frame of the Y Type is higher than the B Type. I mounted the front and rear axles on small blocks, $\frac{1}{8}$ inch \times $\frac{1}{2}$ inch, made out of three thicknesses of 40 thou plastic card. I should also mention at this point that both front and rear wheels on the Y Type were the same diameter whereas of course the front wheels are smaller in the Airfix B Type kit. This is but one example of a deviation we must accept if we are to make maximum use of available Airfix parts but it is interesting to speculate whether correct size front wheels are available from any other source.

Left: The AEC Y Type model under construction from the 'Ole Bill' kit showing modifications to the bonnet, as described here, and the new cab assembly from plastic card. Note balsa insert beneath cab to extend chassis.

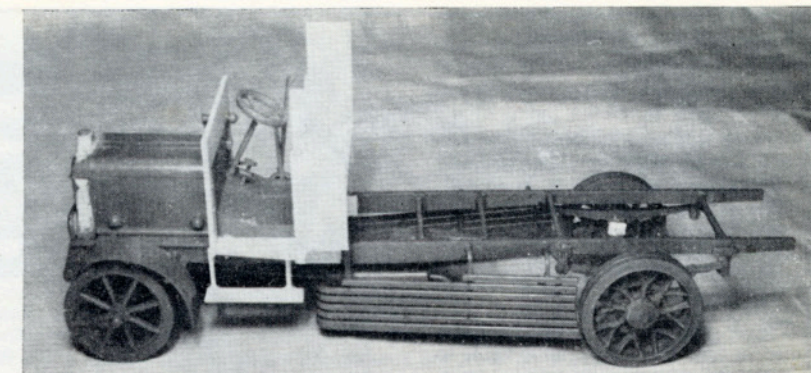


Stage 44: The exhaust pipe has to be restyled since it is fitted on the opposite side of the chassis. This is simply a matter of cutting off the pipe at both ends of the silencer and cementing them back in place so that the bends in the pipes face the opposite way. The pins on the silencer can be cemented to the inside of the left hand chassis side member in the absence of the floor, part 5.

Stage 56: The front mudguard should be curved to shape in hot water.

CHASSIS DETAILS

Further work on the chassis can include fitting the clutch, brake and accelerator pedals, steering wheel, gear lever and hand brake. The horn should be cut through just in front of the bulb and the bracket removed. The bulb can then be cemented into a hole in the driver's side of the dashboard and the trumpet part on the other side. The radiator guard and starting handle can be fitted in place. As can be seen in the photograph the step on the nearside of the driver's platform is much longer and can be built up from 1 inch \times $\frac{1}{2}$ inch plastic card supported from two $\frac{1}{2}$ inch



Another view of the model under construction showing the modifications referred to in the text. This conversion can be made from the Airfix 'Ole Bill' or the standard B Type kit. Lifeguards remain in place on this model as it is to be completed as a LGOC lorry bus.

long struts cut from the same material.

The driver's seat, part 26, is discarded and replaced by one 2 $\frac{1}{8}$ inch wide built up from 40 thou plastic card. The driver's platform is extended either side by footboards which I made from 40 thou plastic card. I have no information to confirm the width of the dashboard and the seat but it would appear from careful examination of available photographs that the seat is wider. It should follow therefore that these

footboards will taper outwards from front to rear. It doesn't look out of place on the model so I think this piece of necessary guesswork to be on the right lines.

Construction of the chassis is about all I have space for this month but I hope to continue the article in the next issue and move on to the bodywork with particular reference to the LGOC adaptation of these vehicles as stop-gap buses immediately after the war.

NEWS FROM IPMS

IN a report on the United States' branch of the International Plastic Modellers' Society, Jim Sage, National Director, describes 1966 as a 'year of major success in the promotion of model displays. Through Society activity at air shows, conventions, movies, fairs, libraries and the like, good model work has been brought to the attention of many thousands.

'The primary project for IPMS-USA during 1967 is the completion of a permanent model display for the National Guard Association, representing all aircraft types flown by the National Guard since 1908. Since many of these models must be scratch-built, any AIRFIX magazine reader, IPMS member or not, who would like to participate in this project should contact Robert H. Sauter, 3040 Idaho Avenue NW, Washington D.C., 20016.'

Nearer home, a major item in the IPMS-UK calendar is the forthcoming annual general meeting on March 31, 1967. Being held at Colour Film Services, 22 Portman Close, London W1, formal business begins at 6.30 pm, giving way to the film 'Angels One-Five' at 7.45. The story of an RAF fighter squadron in the Battle of Britain, it provides the subject of the evening's model competition—the Hawker Hurricane. Models may be of any variant, mark, or scale, and by any kit manufacturer, with the first-placed winning a prize of five pounds. Entry to the meeting is by membership card or completed application form only.

Regular meetings include that of the Cambridge branch on March 1, at 8.30 pm at the Cross Keys in Saxon Street and that of the London branch on February 24. As usual, this will be at St. Mark's Church Hall, Balderton Street, London, W1, starting at 7.30 pm.

Details of membership are available from the Hon. Secretary, 23 Chadville Gardens, Chadwell Heath, Romford, Essex.

March, 1967

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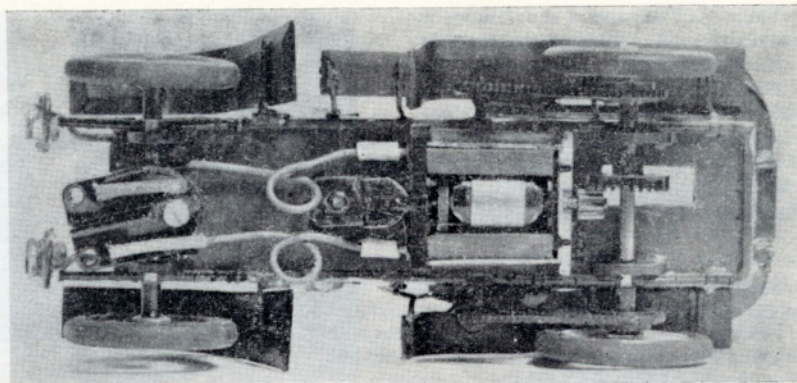
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AIRFIX having produced an impressive array of old time car kits, it seems a good idea to take a look at ways of motorising them so that we can stage vintage and veteran racing events on slot racing circuits. There is no doubt that a race for old timers has a charm all its own and my next few Wheelspin articles will be dealing with methods of making the Airfix models work, keeping everything as simple as possible and utilising as much of the kit as can be incorporated.

The six veteran cars made by Airfix range in time from 1902 until 1911, so the first to receive motorisation treatment is the recently issued 1902 De Dietrich. It must be borne in mind that



Underneath view of the completed De Dietrich motorisation showing motor location, cut-out for contrate, and pivoted guide. Compare this shot with constructional sketches given on this page.

De Dietrich slot racer

these replicas of early cars raise many problems for the do-it-yourself motorising fan, not least of which are the stark, high chassis, large wheels, and small bodies, all presenting obstacles not encountered when motorising modern cars like the MGB or TR4. I have tried to retain as good a scale appearance as possible and, considering all things, it is possible to motorise the De Dietrich without too many concessions to mechanical expediency.

For this motorisation you'll need the following items in addition to the De Dietrich kit: one Airfix electric motor and rear axle assembly, an MRRC guide shoe (part number 751), a small piece of $\frac{1}{16}$ inch aluminium sheet and $\frac{1}{16}$ inch thick plastic card, a length of $\frac{3}{32}$ inch steel or brass rod and $\frac{3}{32}$ inch inside diameter brass tube, some 8 BA and 10 BA nuts and bolts, pick up braids and thin flex.

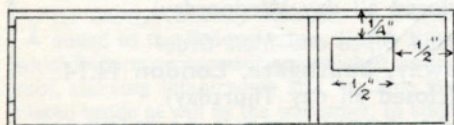
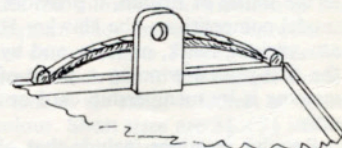
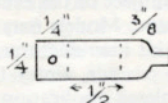
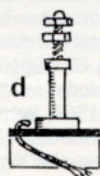
A start is made by cutting a small rectangular hole in the chassis floor (part 2) as shown in sketch A to accommodate the contrate gear. Next remove the plastic tyres from the wheels using



a lathe if you have access to one, or else employing methods similar to those advocated for the Matador wheels by Norman Simmons in our October, 1966, issue. Briefly this involves holding a drillstock in a vice, clamping the wheel between nuts on a suitable bolt, and working with a small chisel as the wheel is rotated. Finish with a file, using this or a router to make a shallow V all round the wheel rim to locate the new tyres. You are unlikely to have any suitable tyres for wheels of the De Dietrich's diameter; I used the small rubber rings obtainable from umbrella repair shops and these are admirable for the purpose when attached to the wheel with Evostik.

The next stage is to paint as many parts as possible before assembly as some items will become almost inaccessible as work proceeds. When this is complete, the motor can be mounted on the underside of the chassis, using a small piece of plastic card $1 \text{ inch} \times \frac{1}{16} \text{ inch}$ with notches filed in to register with the lugs on the motor. This, when cemented, will locate the rear or pinion

Constructional sketches for De Dietrich motorisation, not to scale. All necessary dimensions are given; key letters correspond to references in text.



end. An aluminium bracket shaped as in sketch B registers with the slot between the brushes and is bolted to the chassis with a 10 BA bolt. This anchors the front end of the motor.

The standard Airfix axle is too short for this car, so the nylon contrate gear is transferred to a piece of $\frac{3}{8}$ inch rod $1\frac{1}{2}$ inches in length. The gear is fairly tight on this, but for an extra grip make a couple of punch marks on opposite sides of the shaft, then tap the contrate into position. This means that with the gears meshing there will be an equal amount of axle projecting either side of the chassis.

The back axle is carried by two plastic card supports as shown in C, but before fitting, the rear springs (parts 59 and 60) are cemented into position. The plastic card supports are slipped on to the axle and cemented to the underside of the chassis inside of the springs. Before cementing, check that the axle does not bind on the centre of the springs.

The front axle is also made from $\frac{3}{8}$ inch rod, $1\frac{1}{2}$ inches long, and is mounted on plastic card supports similar to those at the rear. Parts 13, 57 and 58 are cemented in place first, however.

Before fitting the rear wheels, the chassis chain drives, parts 67 and 68, are attached. The centre holes in the rear sprockets are opened to $\frac{1}{8}$ inch and the layshaft ends cut from part 61 are cemented into position under the chassis.

To form the wheel hubs and spacers, short lengths of brass tube are used. Their length can be determined by checking the front and rear tracks against the original plastic axles. A small washer is soldered on to locate the inside of the wheels and the wheel is slipped on to the tube with a small amount of Evostik and another washer. The outer end of the tube is then spread slightly with a punch to lock on the washer and wheel. The rear wheels are tapped on to the rear axle to the correct track width and the front sprockets of parts 67 and 68 are cemented to the layshaft on either side.

The front wheels will need to run free on the axle, so this will need reducing slightly with emery cloth. A small washer is soldered to one end of the axle and this is then slipped through one wheel, passed through the two supports, the other wheel is placed in position and finally another washer is soldered on to the other end. A piece of

paper held between the wheels and the washer will give the necessary sideplay when removed after soldering.

To compete the chassis, the guide shoe is fitted as shown in sketch D. The brass pivot pin is not quite long enough, so I cut off a $\frac{1}{4}$ inch from the end and soldered an 8 BA bolt to the end in its place. A nut above and below the chassis provides the attachment with a degree of adjustment thrown in for good measure. The shoe pivot is located just behind the front axle—this model uses a pivoted shoe and for simplicity steering is ignored.

The pick up braids are now soldered to the motor pins, the flex is soldered to the braids, and rubber or plastic sleeving is used to hold the other end in contact with the motor. Leave enough play in the flex to avoid restricting the movement of the guide shoe. With this stage completed, test the chassis on the track and make any necessary adjustments.

Final assembly follows the kit instructions and with care and time in assembly you should end up with a charmer to give a true 'Brooklands' look to your electric racing circuit. I must stress, however, that this motorisation should not be rushed.

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Household Cavalry

J.S.R. MEAD SUGGESTS SOME INTERESTING LIFE GUARDS CONVERSIONS

THE Life Guards and the Royal Horse Guards (The Blues) form the Household Cavalry and are the personal attendants on the reigning Sovereign. The Life Guards are the oldest cavalry regiment in the British Army, having been raised in the Low Countries in 1660 from cavaliers who had accompanied Charles II into exile. The Royal Horse Guards, on the other hand, had served in the Parliamentary army and was to be disbanded in 1660. The order, however, was not carried out

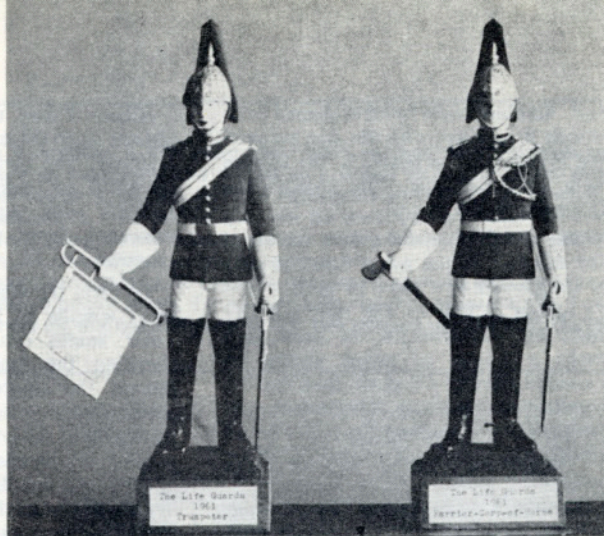
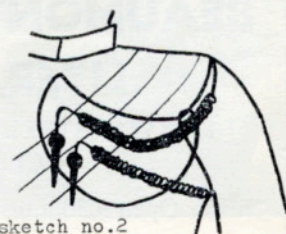
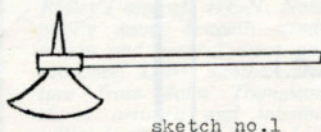


and the regiment was included in the royal establishment on January 26, 1661.

As personal guards to the Sovereign, both regiments hold certain privileges and distinctions. They are the only present day cavalry to retain the full dress uniform with the cuirass, and the Officers and NCO's wear aigullettes on the shoulder.

From the figure of the Airfix Life Guards trumpeter a number of variations can be produced which illustrate several present day uniforms of the Household Cavalry. In general the assembly and painting instructions provided with the kit should be followed unless otherwise stated. Matt paint gives the most natural appearance for cloth, feathers and fur, and gloss for leather and wood. Metallic finishes should be used for surfaces representing metal and lace. In each case the position of the arms and the pose of the figure can be a matter of personal choice. All parts not used should be saved for future models.

Left: With cuirass and lance the figure is converted to a trooper for the musical ride at the Royal Tournament. Lance is carried by the Household Cavalry only for this event. Sketches (below) of pole-axe and aigullettes are referred to in text



Alternative treatments for the Airfix 1:12 scale Life Guards trumpeter. **Left:** Position of the arm and trumpet is altered to the 'carry'. **Right:** Replacing the trumpet with a scratch built pole-axe and the addition of NCO's aigullettes from coiled thread or tinsel produces an excellent Farrier-Corporal of Horse.

The Life Guards: Farrier-Corporal of Horse

THIS figure is of identical construction to that of the trumpeter except that the trumpet is replaced by a pole-axe. This can be made from a piece of the sprue to which the various parts of the kit are attached, and scrap plastic or card as in sketch 1. The tunic is painted dark blue with a black collar trimmed in gold, and a gold second class aigullette is worn on the left shoulder as shown in sketch 2. The plume is painted black.

A Farrier-Corporal of The Blues would be painted in exactly the same colours but would wear a red plume.

Royal Horse Guards: Trumpeter

A VARIATION is produced in this figure by placing the trumpet in a playing position. This is achieved by sawing the right arm through at the elbow, and filing each part so as to fit together to form an approximate right angle. Place trumpet in the right hand and ensure that the appearance of the right arm assembly will be correct

before fixing to the body. The hole under the right armpit can be filled with body putty. The tunic is dark blue with a scarlet collar. The collar is trimmed in gold, as are the front and bottom edges of the tunic. The plume is red. The buttons on the skirt of the tunic should be carefully filed flat as they are not worn by the trumpeter.

The Life Guards:

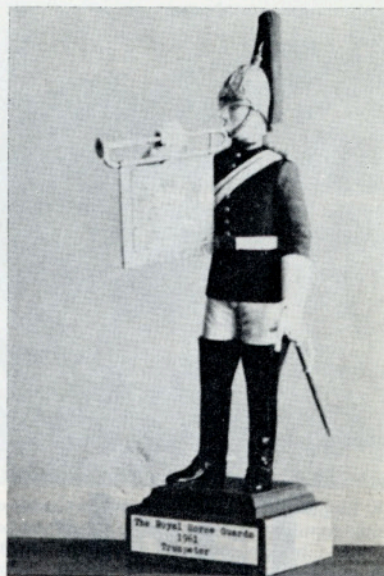
Trooper

THIS figure, which represents a trooper dressed for the traditional musical ride at the Royal Tournament, carries a lance but no sword, and wears the cuirass. The lance is 9 inches in length and is formed from thin wood dowel or plastic sprue suitably heat stretched, or even a thin knitting needle. The pennon is cut from paper and is coloured red over white. The right arm is altered in the same way as previously described. By using a fine file all the

buttons and creases on the front of the tunic must be removed. This should be done before either arm is attached to the body.

Paint the figure silver from the waist up to represent the steel cuirass. No shoulder straps need be fixed as these would not be seen under the connecting straps securing the breast and back-plates. The tunic is scarlet with dark blue collar trimmed in gold. The plume is white.

By painting the tunic dark blue with scarlet collar trimmed in gold and red plume, a trooper of the Royal Horse Guards is produced and makes a pleasing alternative to the Life Guards figure. Anyone desiring rather more in the way of uniform details for these figures will find that quite a number of tourist brochures and booklets have colour pictures of the Household Cavalry while, of course, visitors to London can see the prototypes at first hand in Whitehall!



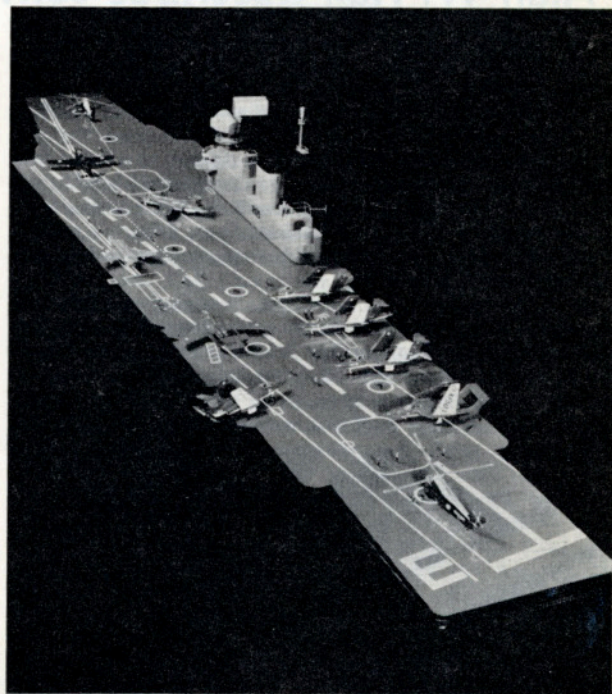
The Royal Horse Guards trumpeter.

Carrier flight deck in 1:72 scale

We've often heard readers mention rather wistfully how impressive it would be to have a 1:72 scale model of a carrier's flight deck, but only now have we seen this dream transformed into reality by RNAS Lossiemouth who have faithfully modelled HMS Eagle's flight deck and 'island' as they appear after this famous ship's recent reconstruction. The picture (right) shows just what a magnificent job they've made of it—and, incidentally, it gives an excellent guide to flight deck geography for land-lubbers who wouldn't know a catapult from a lift well. Points to look for in the picture are the take off/landing spots for AS helicopters—the large numbered circles; flight deck centre-line—large broken line; catapult approach guides—small broken lines; the panels round the catapult rollers and blast deflectors; the small circles round the lift controls; and the boundary line (top right) of 'Fly One', the main deck park ahead of the island for incoming aircraft. Note also the massive type 984 '3-D' radar aerial above the bridge, 'Flyco' overhanging the flight-deck, and the CCA radar at the after end of the island. Finally note the ship's identification letter (E) on the round down aft.

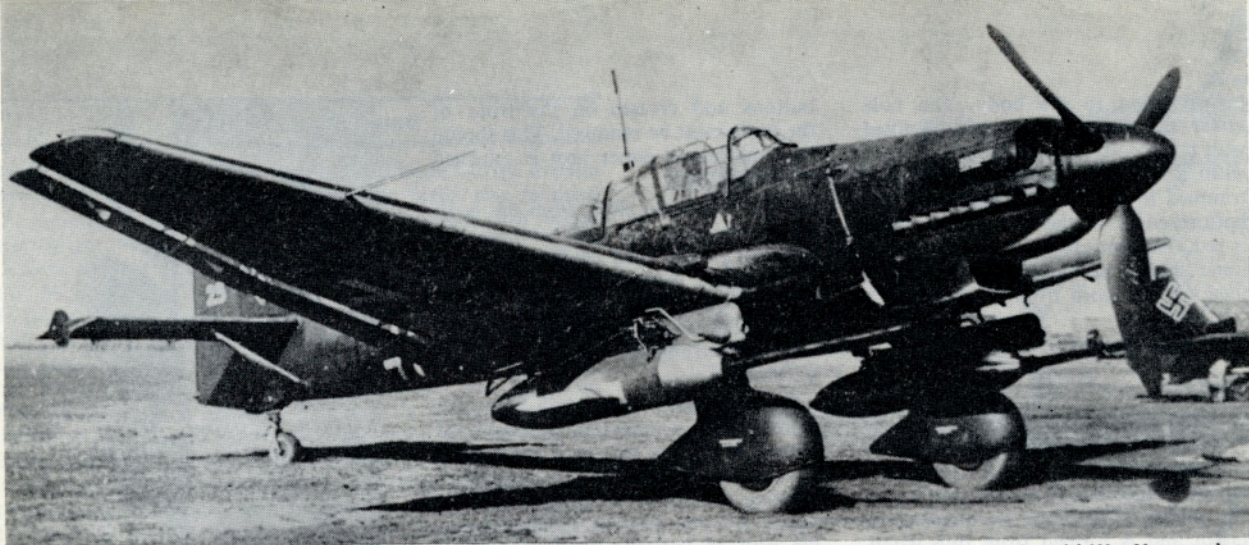
As reconstructed, Eagle has had one catapult shifted, logically, to the angled deck, giving a longer run and leaving more room in 'Fly One' for parked aircraft. Airfix Buccaneers and an F-4K Phantom (converted from the Airfix Phantom) are prominent in the picture, while all the flight deck personnel are converted from suitable Airfix OO/HO figures. All are in authentically coloured vests and are positioned correctly for flight deck operations. Note particularly the yellow-vested directors guiding aircraft on to catapults and ready to direct the planeguard helicopter (foreground) into the air. Wessexes, Sea Vixens, and courier Gannet are Frog models.

Though made primarily for display purposes, the model also has a practical application in that it can be used for working out deck parks for new aircraft types. As a display piece it has been seen in shop windows in Aberdeen, Dundee, Inverness,



Arbroath and Elgin. It will also be included as an exhibit at future Lossiemouth Naval Air Days.

Will it fit your dining room? For anyone with similar ideas, Eagle's flight deck in 1:72 scale works out at approximately 11 feet long and 2 feet wide. The model is made from wood, with the superstructure in light grey and the deck in dark grey with a yellow centre-line. All other deck marking are in white. Whether or not you have room for it, a 1:72 scale carrier's flight deck would seem a good idea to us for displaying a collection of naval aircraft models! (Photo Crown Copyright, RNAS Lossiemouth).



Imperial War Museum photo

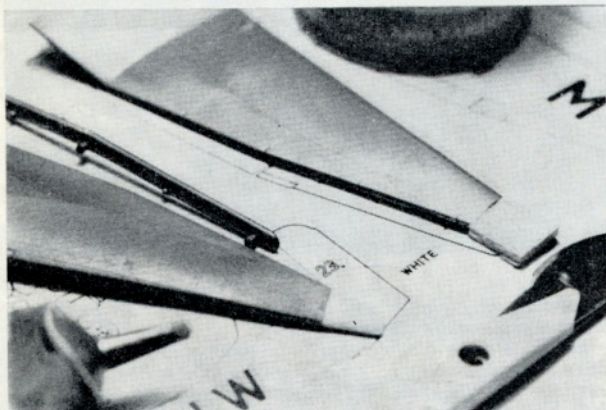
Tank busting Stuka

Alan W. Hall describes conversions with the Airfix Ju 87

Part 2: The Ju 87G

THE Junkers Ju 87G is perhaps the most interesting of all the various marks and variants of this famous war-time dive bomber. It is also one of the most difficult to convert. Not only does the model maker have to change the shape of the nose section but the cockpit is different, the tail unit has to be modified and the wing tips extended. Apart from this there is an optional variation to the undercarriage and, of course, the twin cannon.

Much of the work of conversion was dealt with in last month's article and I found that in producing these two models it was worth doing both at once. Unfortunately the description would not fit into one copy of AIRFIX magazine, so if you have already started this conversion based on the previous copy I hope you will forgive me for bringing up the subject again.



Adding the wing tips. Those in the background are shown immediately after having been joined to the small piece of balsa which is subsequently sanded to fit the plan and then filled before painting.

The aircraft I built is based on one which was used by the 10 (Pz) StG1 and similar to that flown by Colonel Rudel of the Luftwaffe who was credited with the destruction of 500 Russian tanks, the battleship *Marat* and thousands of trucks, troop carriers and armoured vehicles.

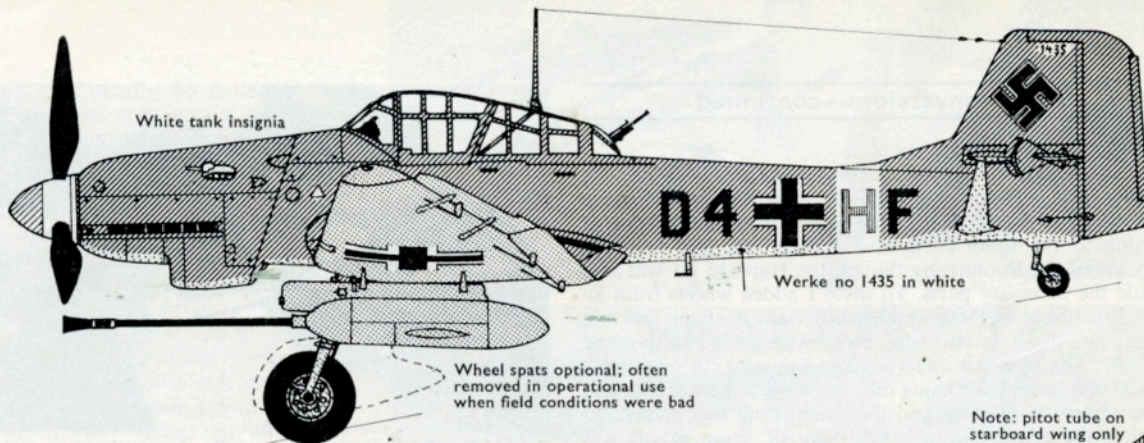
Presuming that the reader already has the previous article on this conversion I will be dealing with the several extra bits and pieces needed to produce the 'G' by listing these and describing the individual assemblies.

Wings: The Junkers Ju 87G had all bomb racks and dive brakes deleted which means that the locating holes on the model will have to be filled fairly early on in the construction so that they can dry out thoroughly before conversion begins. At the same time it is necessary to extend the wing tips by $\frac{3}{8}$ inch. To do this I cut the original tips square with a fine saw and stuck small pieces of balsa roughly cut to the right shape on to the ends and left them to dry out thoroughly. After all work on the fuselage had been completed I started on the wings and very carefully sanded the tips down so that they matched the plan. A coating of talcum powder and clear dope was added and sanded smooth followed by another coat using more dope than talcum. The result gives a hard finish which matches up perfectly with the plastic so that the joint just cannot be seen after painting. The trailing edge flaps are dealt with in the same way but even greater care needs to be taken here as the joint is much smaller and liable to break if any undue strain is put on it. Once attached to the model there can be little chance of breakage as the protection afforded by the main part of the structure rules this out to a great extent.

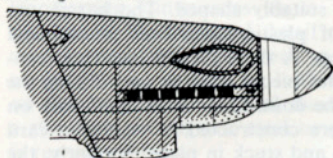
Undercarriage: Most of the photographs showing Ju 87Gs on the Russian front depict the aircraft with the wheel spats removed. This was to facilitate ease of operation on the mud covered fields which were used for operational purposes by the

Continued on page 248

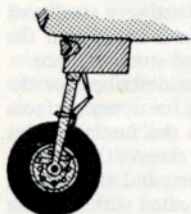
Drawing, right: Junkers Ju 87G-1 of 10(Pz) StG 1



Starboard side of nose showing air intake

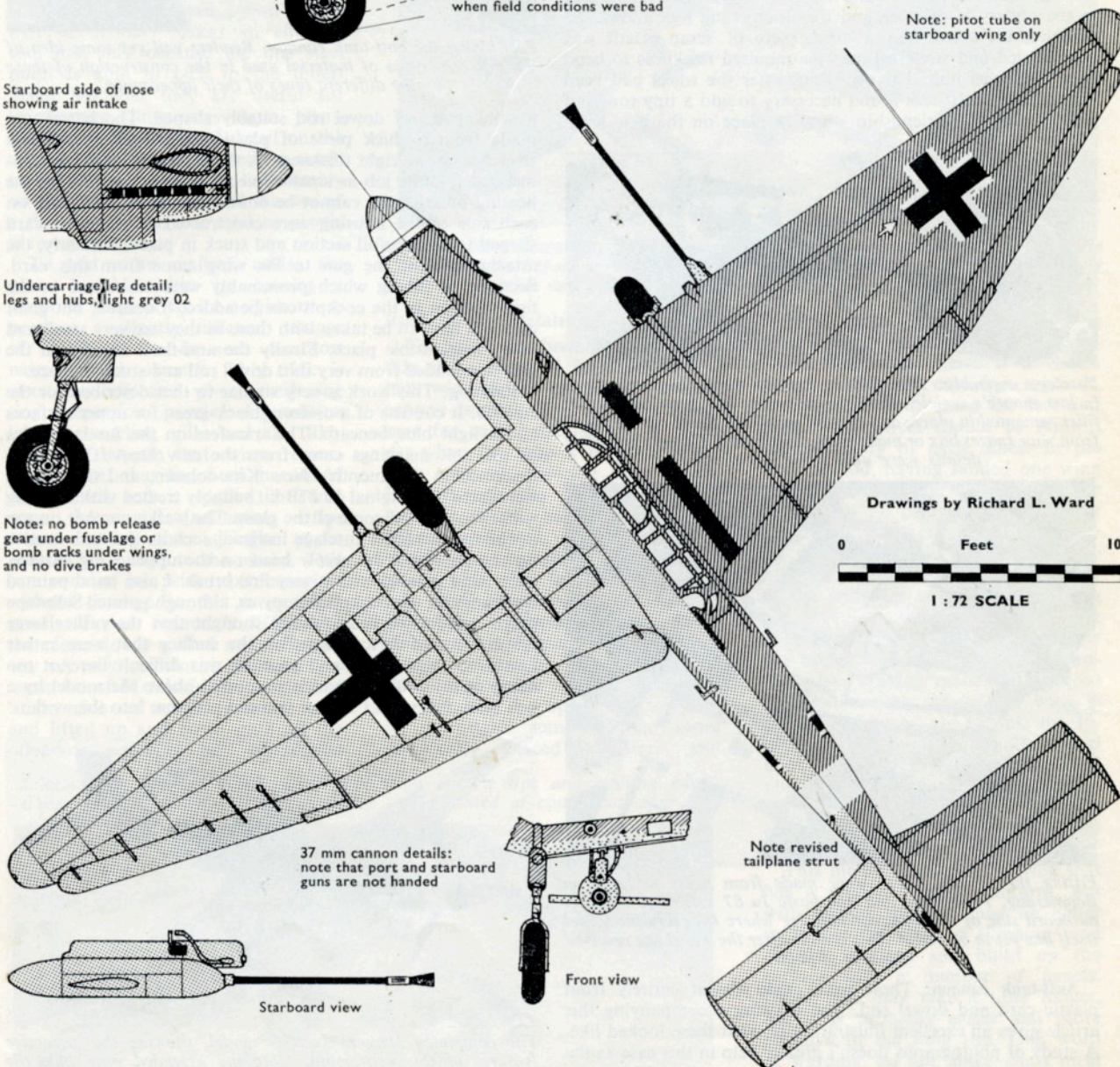


Undercarriage leg detail; legs and hubs, light grey 02

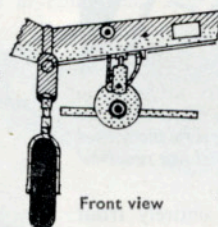


Note: no bomb release gear under fuselage or bomb racks under wings, and no dive brakes

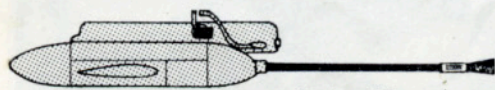
Note: pitot tube on starboard wing only



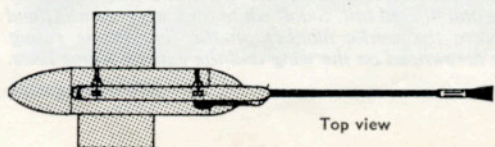
37 mm cannon details: note that port and starboard guns are not handed



Note revised tailplane strut



Starboard view



Top view

All colours matt



White



Black



Black-green 70



Lt Blue 65

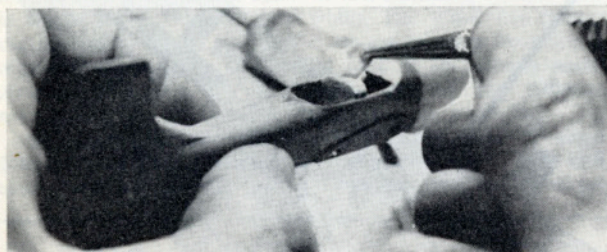


Red

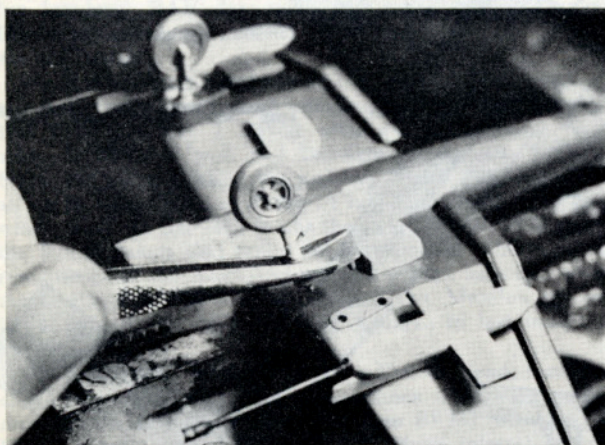
Stuka conversions—continued

Luftwaffe in their forward areas.

The construction of wheels without the spats does provide difficulty as it is almost impossible to make the undercarriage legs without resorting to gleaning a pair from another kit or resorting to the spare parts box. I chose the legs from an Airfix kit of the Boomerang though the Harvard kit will also provide the necessary parts. To these I added wheels from an Airfix Friendship as these were exactly right in shape and size plus the fact that they had hubs which were similar to those of the Ju 87. The Ju 87 kit undercarriage legs were cut off leaving stubs 3/16 inch long for fixing into the wing. A hole was drilled in the underside of these and the Boomerang legs added. To complete the conversion a small piece of scrap plastic was heat treated and stretched into the required thickness to bend over the wheel hub. This was done after the wheel had been painted because it was found necessary to add a tiny touch of glue to hold the Friendship wheel in place on the new leg.



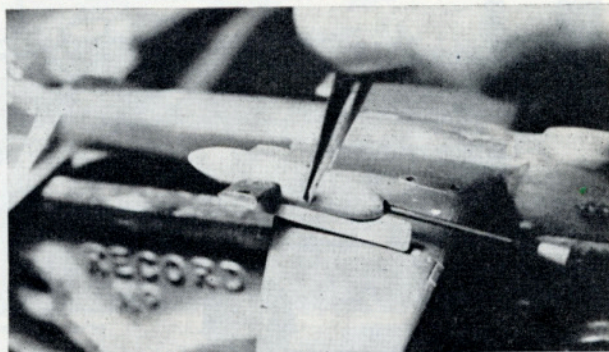
Fuselage assembly. This follows exactly the instructions given in last month's article. Here the new nose has been added, tail fillet cemented in place, and cockpit modified. Seats can be taken from your spares box or made from plastic card. Canopy moulding details were also given last month.



Fitting the wheels. These were made from parts taken from Boomerang, Friendship and the basic Ju 87 kit. Note that the outboard side of the undercarriage leg where it covers the wheel itself has yet to be added. This is done after the wheel has received a coat of paint.

Anti-tank cannon: These were made almost entirely from plastic card and dowel rod. The drawing accompanying this article gives an excellent illustration of what these looked like. A study of photographs doesn't greatly help in this case as the guns are usually in shadow under the wing and confusion can arise very easily.

The basic shape which contains the gun housing came from



Positioning the anti-tank cannon. Readers will get some idea of the different types of material used in the construction of these by the different tones of their appearance.

a small piece of dowel rod suitably shaped. The barrel was made from a thick piece of plastic stem, heat treated and stretched to the right thickness. A thick piece of stem is recommended for this job as smaller pieces tend to curl during the heating process and cannot be controlled. Shell containers on each side of the housing were constructed from plastic card shaped to an aerofoil section and stuck in place. Similarly, the attachments for the gun to the wing came from this card. Sections of tubing which presumably were connected to the firing button in the cockpit can be added, if desired, but great care will have to be taken with these as they are very small and in an inaccessible place. Finally the anti-flash muzzle on the gun was sanded from very thin dowel rod and stuck in place.

Painting: This work is very similar to that described for the Ju 87D. It consists of a uniform black-green for upper surfaces and a light blue beneath. The transfers on the fuselage sides of the unit markings came from the new HisAirDec sheets described in this month's New Kits column, and the crosses were from the original Ju 87B kit suitably treated with a typing rubber to take off some of the gloss. The werke number on top of the fin and other fuselage insignia, such as the tank motive on the nose and the arrow head on the upper wing surface, were hand painted with a very fine brush. I also hand painted the frame on the cockpit canopy as, although painted Sellotape strips could have been used, I thought that the rather large number would form bumps on the surface that were rather untrue to scale. The hand painting was difficult but not too much of a job if the hand is supported above the model by a box or similar object so that you can get close into the work.



The completed Junkers Ju 87G model, showing the attractive features of this conversion. Note the extended wing tips, the modified nose and filleted tail. Small white tank insignia was hand painted as were the werke number on the fin, octane rating triangles, the arrowhead on the wing and the canopy frame lines.

AIRFIX magazine

NEW BOOKS

REVIEWED FOR MODELLERS

North of the border

AVIATION IN SCOTLAND, by J. L. Wood and J. D. Gillies. Published by The Royal Aeronautical Society, Glasgow branch. Obtainable from Mr J. Sacharin, 22 Vennard Gardens, Glasgow S1. Price 6s.

THREE years ago when the Royal Aeronautical Society was planning how best to celebrate its centenary, the Glasgow branch decided that it would be an excellent idea if a book were published on aviation in Scotland.

That this could be done by a relatively small group of people is an outstanding achievement. Very little indeed has hitherto been written about this subject though there are many other volumes that make reference to the aviators north of the border.

The result is a book of some 130 pages and many first rate illustrations describing flying activities in Scotland from the early sixteenth century to the present day. The Scottish branch of the Royal Aeronautical Society was founded in 1909 as a separate body from the main society. It amalgamated in 1919 at a combined inaugural meeting and welcome for the crew of the Scottish-built airship R34. This first meeting was attended by over 3,300 people, by far the highest number, the book records, ever to attend a branch society meeting!

Armour on parade

MILITARY VEHICLE PRINTS, SERIES 9. Published by Merberlen Ltd, Hawthorn Hill, Bracknell, Berks. Price 4s (post free UK, 1s 6d postage overseas).

THE standard of Bellona's military vehicle drawings has consistently improved since their introduction, and this latest issue, covering the US Army's M10, the experimental T14, the 8 ton ZgKw prime mover, and 8.8 cm Flak 18 is probably the most interesting yet. The half-track ZgKw—or Mittlerer Zugkraftwagen to use the full German name—designated Sd Kfz 7, was the most widely used prime mover for the famed Flak 18 and the centre-spread of this issue certainly does justice to the pair.

In addition to four views of the vehicle there are four views of the '88' in both towing and emplaced positions and a cut-away view of the half-track to show the drive and ammunition stowage, etc. The drawings are superb and certainly justify the publisher's claim that they are the most detailed ever released on this equipment. Since the drawings are to 1:76 scale they will be very useful to anyone wishing to scratch build a half-track and/or flak gun to scale with Airfix tank models—though the task looks quite formidable! The M10 and T14 are also finely drawn, with the addition of a cut-away view for the M10, and would be very useful to scratch builders working from Airfix Sherman parts.

Photo coverage of the subjects drawn is very good, though a little murky in one or two instances, and includes a view of the Bedford derivation of the Sd Kfz 7 projected, but never produced, for the British army. The back cover of this issue gives a cut-away scale drawing of the ubiquitous

7.92 mm Besa machine gun, standard weapon for British AFVs, and includes full details both of the various marks of gun and of the ammunition.

Aviation in the 'thirties

US CIVIL AIRCRAFT, Vol 3, by Joseph P. Juptner. Published by Aero Publishers Inc, and distributed in the UK by Hersant Ltd, 228 Archway Road, London N6. Price 71s carriage paid.

THIS is the third volume (and the first to be reviewed in AIRFIX magazine) of a book devoted to all civil aircraft awarded an 'Approved Type Certificate' by the US Aeronautics Board. It covers 100 aircraft in the 1930 period and contains details and information on the history of many previously unknown American types.

Apart from the Ford Tri-motor, there are few other aircraft types that are well-known on this side of the Atlantic during the period covered by this book. It is therefore refreshing to read about the pioneering days of American light aviation, the formative years of their considerable private and executive aircraft market which has now extended to all parts of the Western world.

Each aircraft has a short history, production data, performance figures and complete specifications. There are many photographs and a lot of interesting anecdotes written into the histories about the development of American aviation during this time.

New Profiles

AIRCRAFT PROFILES 133-138; CAR PROFILES 43-48. Published by Profile Publications Ltd, PO Box 26, 1a North Street, Leatherhead, Surrey. Price 2s each.

THE Beaufighter Marks I and II, the Curtiss Kittyhawk I-IV, and the Dewoitine 520 are among the latest batch of Aircraft Profiles to be released by Profile Publications. All three are likely to be of use to 1:72 scale modellers, the Kittyhawk Profile, for instance, giving no less than 25 full colour views applicable to the Airfix model either as it comes or when suitably modified. These include GA-Y, subject of the Airfix kit, and several other Desert Air Force variations as well as Australian, Dutch, New Zealand and Canadian examples. US versions of the P-40 are to be covered in a separate Profile.

Rather less colourful, but none the less interesting, is the Beaufighter Profile by Philip Moyes which includes a six-view centrespread in colour as well as 14 other Beaufighter colour views in the endpapers. Various experimental Beaufighters are also covered pictorially and in the text. Lovers of the French Dewoitine 520 will be suitably dazzled by Profiles' colour treatment of this subject as one whole page is devoted to examples of this aircraft in the gaudy 'candy stripes' of Vichy Air Force squadrons and a total of 24 different colour schemes is given altogether.

The remaining three Aircraft Profiles do not cover model subjects but all three aircraft featured, the Fokker G-I, the SAAB 21A and R, and the BE2 are well-known types. The usual Profiles pictorial and historical treatment is followed throughout and aviation enthusiasts will regard these as 'musts'.

The six Car Profiles cover the 'M' type MG Midget, the horizontal-engined Wolseleys, the Lotus Elite, the six-cylinder Hotchkiss of 1929-54, the Lancia Lambda, and the Stutz vertical eight. Excellent artwork, either covering individual vehicles or illustrating various body styles, is featured in each and all have numerous pictures and generous text. We liked the MG Midget and Lancia Lambda Profiles particularly, though all are good. Slot racing fans who own miniature Lotus Elites will find plenty in the Elite Profile, incidentally, to enable them to super-detail their models.

Kliment Vorishilov

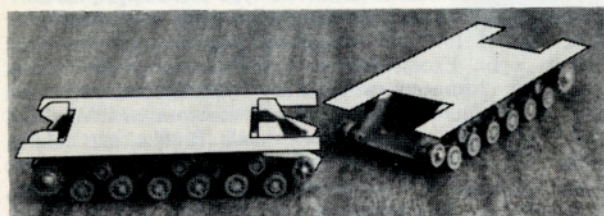
FROM THE AIRFIX JS3

DESPITE the tremendous victories won by the German Armies during the invasion of Russia, the High Command was greatly disturbed to find that the Russians virtually led the world in tank development. The new models T34 and heavy Kliment Vorishilov KV1, or KW1 as it was referred to by German sources, were armed with a medium length 76.2 mm gun and had 45 mm and 75 mm armour respectively. The latter, a 45 ton vehicle, would have filled the specification of the new Tiger which had been just ordered.

Unfortunately for the Red Army few of these tanks were available at this time. Until 1942 the only weapon that could effectively destroy the KV was the 88 mm Flak gun. By mid-1942 the German 75 mm Pak 40 was entering service and the KV1A was superseded in service by the KV1B. This model had improved protection in the form of 30 mm plates bolted to the turret and 35 mm plates welded to the hull front. A new cast turret incorporating heavier armour was mounted on the KV1C. An example of the model C is on display at the RAC Tank Museum Bovington. In 1943 the new turret of the T34/85 was fitted on the KV chassis and this model was called the KV85. Late in 1943 a further new turret was fitted to a new chassis, which had a standard frontal armour of 110 mm. This turret was armed with a powerful 122 mm gun and the improved tank was named the Josef Stalin 1.

Produced concurrently with the KV series was the KV2. This was a heavy assault tank armed with a 122 mm or 152 mm howitzer fitted in a very large turret. It enjoyed only limited success in its intended role due to its unwieldy layout and size. However, it was entirely successful when used as armoured self-propelled artillery. This vehicle was superseded by the JSU 152 assault gun vehicle based on the KV and JS chassis. Also on these chassis were the JSU 122 tank destroyers, which along with the JSU 152 were described in our April, 1964, issue.

KV models under construction showing hull extensions in place (left).

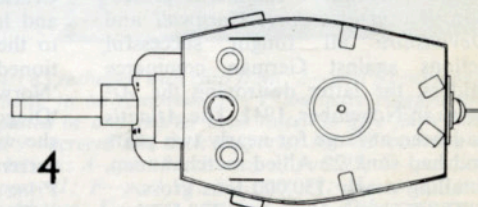
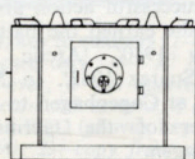
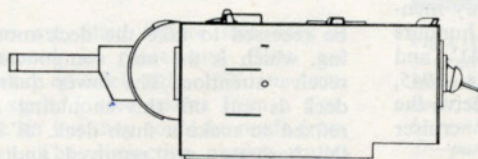
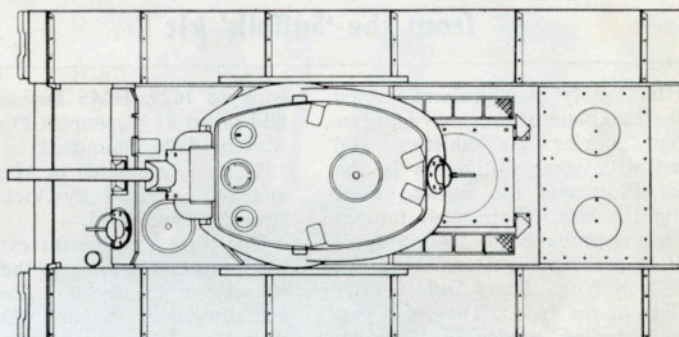
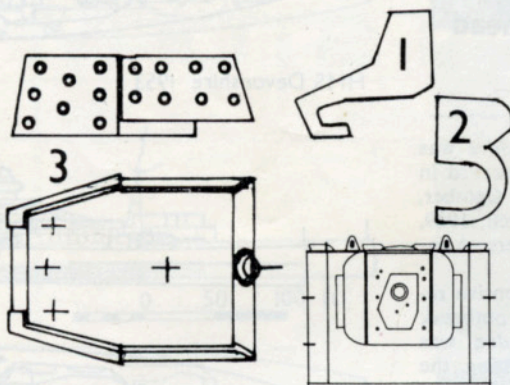
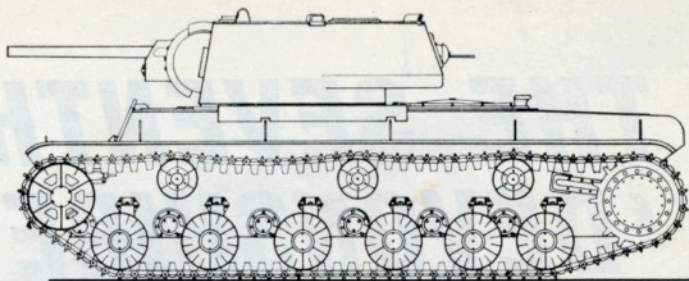
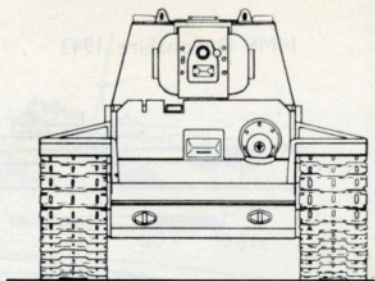


Top: The KV1 model C displayed at the RAC Tank Museum, Bovington. Note the varying style of track cover supports. **Above:** KV2 at the Soviet Armed Forces Museum, Moscow. (Warpics photos.)

MODELLING THE HULL

BASICALLY the hull for all the above vehicles is the same, differing mainly in the thickness and layout of armour. Follow the kit instructions for trackwork, and cement the completed side assemblies on to the hull bottom from which the forward angled sloped plate must be removed. The hull top is replaced by a flat sheet of card 87 mm x 43.5 mm from which 20 mm is cut from the front and 12 mm from the rear, to the width of the actual hull (about 24 mm). This is stuck directly on top of the hull sides. Full-size templates are given for the side extensions which must now be fitted so as to give the correct KV hull shape.

Now working directly from the scale plan it is relatively simple to fit the superstructure. Thin card or plastic card is used to form the curves at the rear. Detail can be made from left overs of other kits depending upon what you have available. For example, I used Tiger wheels for the large round engine cover and paper discs from a punching machine for those near the back. As there were so many machine gun mountings I made mine from Churchill wheels reversed, with an assault gun return roller reversed as the actual shield fitted on the gun. A Sherman hull machine gun would be best of all, as would the driver's visor from the Sd Kfz 234



Plan, side, and front view of the KV1C showing appliqué armour on hull and all details. Front (1) and rear (2) hull extensions; KV1B turret (3) and KV2 turret (4). All drawings except 1, 2 and 3 by A. J. D. North, reproduced by courtesy of Merberlen Ltd. Full-size for model.

armoured car if you have them to spare. Nice storage boxes are made from the half sections of the Scammell transporter fuel tank. Finally, an aerial from scrap is fitted beside the hull machine gun.

The KV1A had the hull in its original form while the KV1B, C and 85 had additional armour on the frontal surfaces. The latter pair also had slabs of armour on the sides to protect the turret ring. Some early KV2s had no machine gun in the hull, which did not carry extra armour. The JS1 did not have additional armour as the basic frontal thickness was now 110 mm.

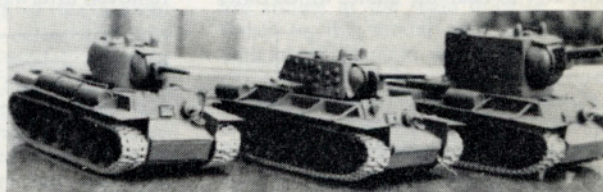
TURRETS

I HAVE included a full-size drawing of the model B turret as this will allow us cover all variants of the series. The model A has an identical turret to that drawn, but without appliqué armour. These turrets were welded from flat plates and therefore are very easy to build up from card, or better still plastic card. To achieve a realistic result with the appliqué armour you are better advised to build the turret first and then add the bolted plates, a most attractive model feature. The studs I made from sections of Panther axle, which I had to spare from my Royal Tiger conversion. These can be quite rough, for when cemented firmly in place it is easy to sand them down to an even height. The two periscope

covers are from the rounded ends of the sprue on which the JS3 wheels came. Strictly speaking the JS3 hatches are not correct, but the difference is slight and it is not worth wasting them. A quick way of making the rounded gun mounting is to mould some Humbrol plastic putty in your fingers. The 76 mm guns are from Shermans and the recoil housing from scrap balsa. The mantlet itself was got by forming card around the mounting.

For the KV1C we have to carve from balsa as the prototype turret is of cast construction. Study the scale drawing carefully and mark out carefully a block of balsa, remembering to make it oversize to allow for sanding. Again in the case of the KV85 we have a cast turret. A drawing of the T34/85 with this turret is available from Merberlen Ltd, while the RAC Tank Museum sells a postcard of the T34/85,

Continued on page 261



Line up of KV models (left to right): KV1C, KV1B and KV2.

THE SEVENTH 'DEVONSHIRE'

Another Airfix cruiser conversion by Ian Whitehead
from the 'Suffolk' kit

THE 'County' class cruisers formed the backbone of our heavy cruiser strength during the 'thirties, and served with great distinction in the Home Fleet and the Eastern Fleet during the war. Their most famous action was probably the shadowing of the *Bismarck* in the Denmark Strait in 1941 by *Norfolk* and *Suffolk*, after the loss of the *Hood*. They also performed sterling service in their designed function of commerce protection. The *Dorsetshire*, *Cornwall* and *Devonshire* all fought successful actions against German commerce raiders, the latter destroying the *Atlantis* in November, 1941. The *Atlantis* had been at large for nearly two years and had sunk 22 Allied merchantmen, totalling nearly 150,000 tons gross.

The 'Counties' were subdivided into the 'Kent', 'London' and 'Norfolk' classes and, as well as the RN units, two further members of the 'Kent' class were commissioned into the Royal Australian Navy. The subject of the Airfix kit, *Suffolk*, can be readily converted into any of these vessels and Chris Ellis has already described the Trials Cruiser HMS *Cumberland* (February, 1966, issue). The subject of this month's conversion is a unit of the 'London' class, HMS *Devonshire*, which was one of four called for in the 1925 estimates. She was designed by Sir James Barrie, who followed closely the outline of Sir Eustace Tennyson D'Eyncourt's 'Kent' class of the previous year, and was the seventh ship commissioned into the RN to bear the name, which dates

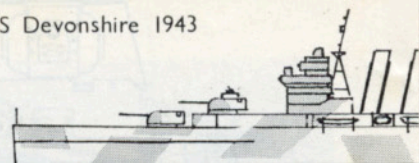
back to 1629. HMS *Devonshire* was laid down at Devonport Dockyard in March, 1926, launched in October, 1927, and completed in March, 1929, and was engined by Vickers Armstrong's Tyne yard.

The class was due for extensive refits immediately prior to the outbreak of war, but only the *London* was actually taken in hand. During the war, *Devonshire* served with the First Cruiser Squadron of the Home Fleet and in the Eastern Fleet. In addition to the successful action already mentioned, she earned the battle honours 'Norway 1940', 'Arctic 1941' and 'Diego Suarez 1942'. In May, 1945, she was at Copenhagen to receive the surrender of the German cruiser *Prinz Eugen*.

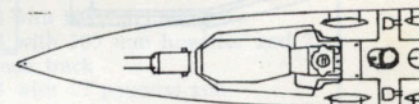
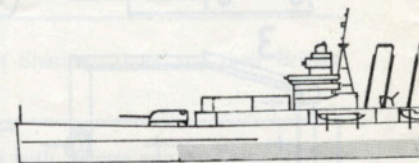
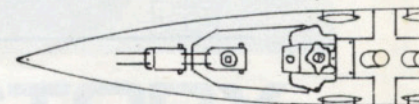
The following year saw *Devonshire* taken in hand for conversion to a Training Cruiser, and in 1953 she appeared at the Coronation Fleet Review as a representative of the Plymouth Command. Her days were by then numbered, however, and in December 1954 she was scrapped at Newport.

The conversion commences with the hull, which must be plated in right aft to give a flush deck where *Suffolk* was cut away. I used plastic card for this, set vertically to within $\frac{1}{4}$ inch of the stern, and allowed the cement to set completely before finishing off with body putty or Bondapaste right aft. A strip of Sellotape fastened round the stern is an excellent framework for this, and is easily removed afterwards. The putty should

HMS Devonshire 1943



HMS Devonshire 1953



be recessed to take the deck moulding, which is the next component to receive attention. The lower quarter-deck is cut off this moulding and refixed to make a flush deck. 'B' and 'Y' barbettes are removed and the resultant holes plugged with plastic card. Two thin strips of card are added round the edge of the quarter-deck and these are then filed till the quarterdeck fits the hull snugly.

If you are going to fit the deck to the hull at this stage, 'A' turret should be fitted before the final cementing. 'X' gun deck (part 20) is now added with the barbette removed, and strips of card 5 mm high cut and fixed vertically to the inside of the hangar recess. These run aft to the sides of 'X' gun deck, to form the bulkheads for the after superstructure deck. The middle upper deck (part 63) is reduced to the size and shape shown in Fig. 2, and a continuation of this deck is made from card (measurements from Fig 2) to meet up with 'X' gun deck. Quadruple torpedo

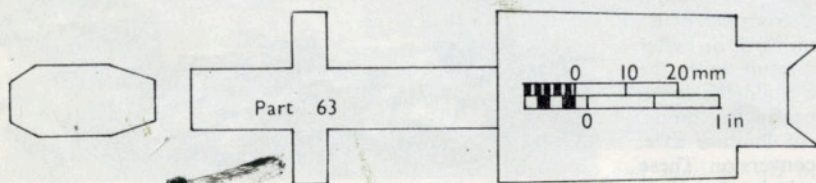
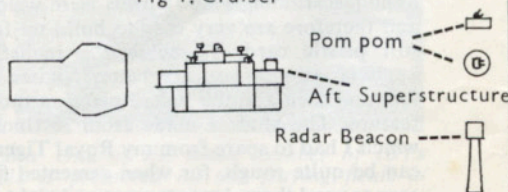
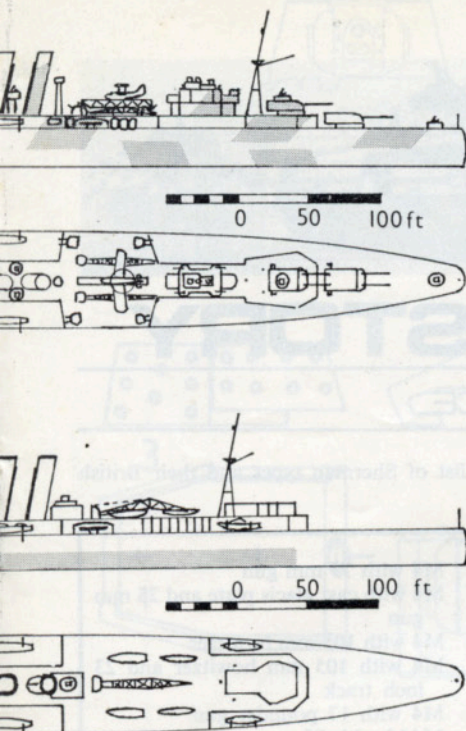


Fig 2. Deckhouses & Upper Decks for Training Cruiser

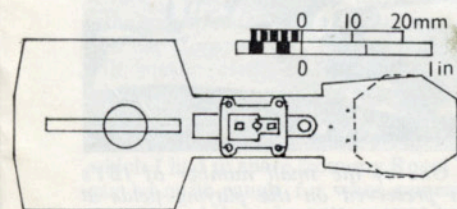
Fig 4. Cruiser





tubes are fitted before this deck is cemented in place and these are located on each side, 132 mm from the stern. I used spares from a *Cosack* kit but they could be made from scrap. The distinctive plating round these tubes, supporting the upper deck can be fitted at this stage and the dimensions can be obtained from the scale drawing Fig. 1 shows all the foregoing modifications, plus the next step.

The bridge is now started and the lower bridge (part 83) is cut down to a rectangular shape 8 mm wide \times 23 mm long, measured from the back of this part on the centre line. Two card sides are added to cover the resultant holes and part 89 is now added without modification. A piece of card is cemented to the front of these two components, as shown in Fig 3, which should be used as a guide to building up the bridge. Part 92 is now added, followed by 90 and 91, the latter requiring a piece of card adding at the rear. The assembly



March, 1967

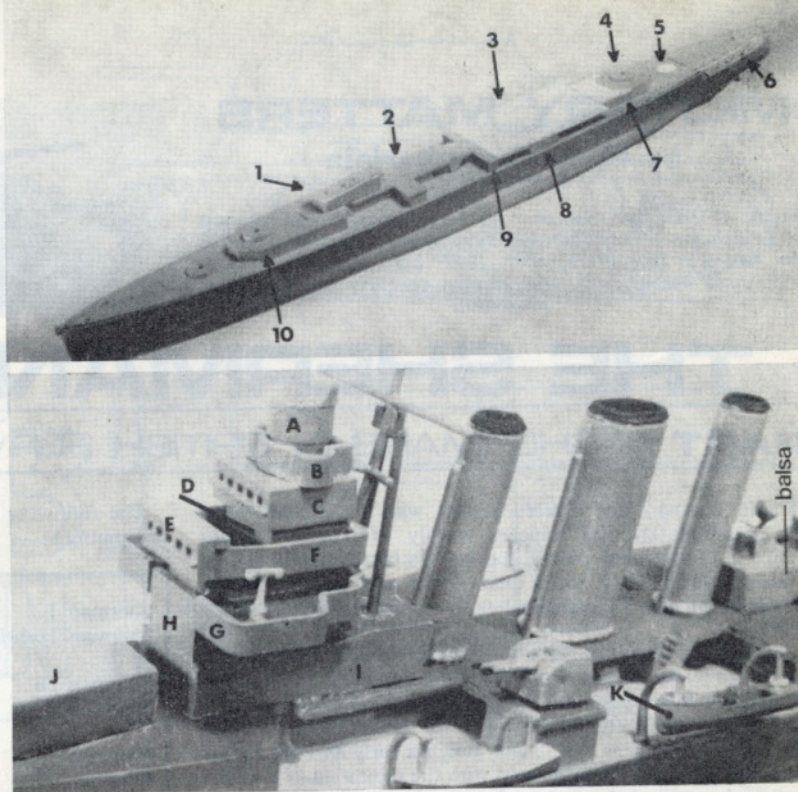


Fig 1 (top), key to numbers: 1—part 83 reshaped with card front; 2—part 63 reshaped; 3—extra card deck; 4—'X' barbette to be removed; 5—'Y' barbette plugged and smoothed over; 6—aft quarter plated in and quarter deck raised to give flush main deck; 7—card side screens; 8 and 9—screens and deck supports; 10—'B' barbette to be removed. **Fig 3 (above), key to letters:** A—part 94; B—top of part 93; C—part 91; D—part 90; E—copy front of part 91; F—part 92; G—part 89; H—card front; I—part 83 reshaped; J—balsa deckhouse; K—crest on ship's boats. Other constructional details for *Devonshire* as training cruiser and for World War 2 appearance given in figs 2 and 4 at foot of opposite page.

is completed by the addition of the top of part 93 which is reversed so that the flat edge coincides with the back of parts 90 and 91. The main director is now fitted to part 93 and a wheelhouse front to part 92. I used part 91 as a pattern and made this piece project $\frac{1}{8}$ inch.

The two deckhouses in 'B' and 'X' positions are now made from 3/16 balsa to the plans given in Fig 2. The funnels are fitted to instructions, and a small balsa deckhouse 11 mm \times 9 mm thick fixed immediately aft of the funnels. The searchlight platform (part 82) is mounted on top of this deckhouse with a 36 inch searchlight (part 105) fitted. Aft of the searchlight deck comes the crane, and only one is used for this model, mounted on the centre line. Two 4 inch gun mountings are carried, one each side on the deck abeam of the fore funnel. The masts I used were those in the kit but they are cut down as follows: foremast (part 108) to 33 mm, legs (part 109) to 19 mm overall,

mainmast (part 110) to 37 mm, legs (part 111) to 20 mm overall. Under the rear edges of the upper deck I fitted stanchions made from stretched sprue on the outboard sides, spaced at approximately $\frac{1}{4}$ inch intervals.

The boats complete the model and these are disposed as follows: two 32 foot cutters (parts 52, 53), two whalers (parts 61, 62) as in *Suffolk*. The motor boat and gig (parts 54 and 55) are placed outboard on davits abeam of the positions filled by *Suffolk's* 35 foot motor boats. These latter are carried abeam of the forward end of the crane and two spare whalers aft of these. The positions are shown in the scale drawing. The finish to the model was light grey with planking main deck and composition upper decks. The boats were painted brown with white covers, except for the two 35 foot motor boats which I finished in midnight blue with red rubbing strakes, white covers and brown decks. This was achieved

Continued on page 268

MILITARY MATTERS

by Peter Chamberlain



Right: One of the first pictures ever released of Shermans in British service; a Sherman squadron moving up towards the Alamein line in October, 1942. Like most of the first 300, these are Mk IIs. (All photos courtesy Imperial War Museum.)

THE SHERMAN STORY

PART 6: SHERMANS IN BRITISH SERVICE

THE Sherman first entered service with the British when approximately 300 vehicles, mainly M4A1s, arrived in Egypt in time to take part in the famous battle of El Alamein during October, 1942. From then on, for most of the war, the Sherman became the principal tank of the British armoured forces.

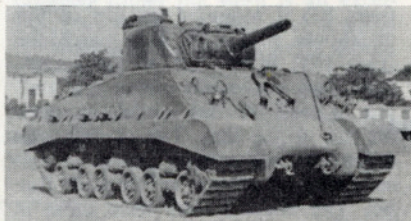
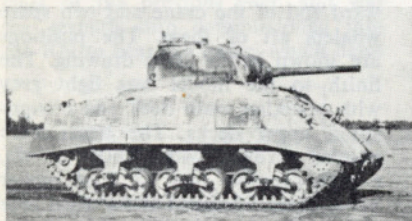
During the course of the war all basic types of the Sherman were used by the British as combat tanks, these being fitted with 75 mm and 76 mm guns and 105 mm howitzers. But undoubtedly the most superior and successful of the British Shermans was the version mounting the 17 pdr gun. As early as 1942 British tank designers had experimented with the mounting of a 17 pdr anti-tank gun and the first tank to be fitted with this weapon was the A30 Challenger which was completed in late 1942 and saw only limited production, this cruiser tank not being satisfactory. In the late part of 1943, however, it was decided to mount the British high velocity 17 pounder gun on to the Sherman.

To achieve this the turret had to be slightly modified and the gun was mounted on its side and adapted for left-hand loading. The alterations to the turret were kept to a minimum and it was possible to use the existing trunnions together with a new gun mounting, recoil and elevating gear. The wireless set was transferred from inside the turret to an armoured box that had been welded to the outside rear of the turret. The wireless set could still be operated from inside the turret, however. The 17 pdr Mk 2 was capable of an elevation of 20 degrees and a depression of 50 degrees and had a muzzle velocity of 2,900 feet per second. The weight of the AP round was 17 lb and rounds carried were 78. The shell could penetrate 120 mm of 30 degree armour at 500 yards. These upgunned Shermans were ready in 1944 in time to take part in the invasion on Normandy where they played an important part against the German panzers and pill-boxes. Nearly all marks of British Shermans were used for 17 pdr conversions, but the most numerous of these was the Sherman VC Firefly.

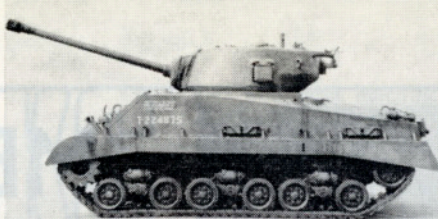
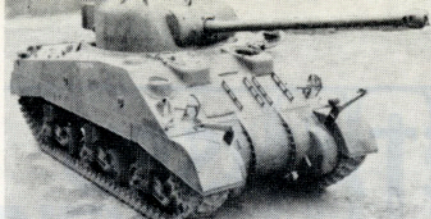
The following is a list of Sherman types and their British designations:

Sherman I	M4 with 75 mm gun
Sherman Hybrid I	M4 with cast glacis plate and 75 mm gun
Sherman IB	M4 with 105 mm howitzer
Sherman IBY	M4 with 105 mm howitzer and 23 inch track
Sherman IC	M4 with 17 pounder gun
Sherman II	M4A1 with 75 mm gun
Sherman IIA	M4A1 with 76 mm gun
Sherman IIB	M4A1 with 105 mm howitzer
Sherman IIC	M4A1 with 17 pounder gun
Sherman III	M4A2 with 75 mm gun
Sherman IIIAY	M4A2 with 76 mm gun and 23 inch track
Sherman IV	M4A3 with 75 mm gun
Sherman IVA	M4A3 with 76 mm gun
Sherman IVB	M4A3 with 105 mm howitzer
Sherman IVC	M4A3 with 17 pounder gun
Sherman V	M4A4 with 75 mm gun
Sherman V (Guards)	M4A4 fitted with Typhoon rocket projectors on turret plus gun
Sherman VC Firefly	M4A4 with 17 pounder gun
Sherman VII	M4A6 with 75 mm gun
Sherman VIIC	M4A6 with 17 pounder

The Sherman IBY and IIIAY had the horizontal volute spring suspension and wide track and, though delivered, were not used in action by the British. Many of the Sherman IIIAY were purchased by the Canadian Army after the war where they were used for training, some of them being gutted and used as armoured personnel carriers.



Above, left to right: A Sherman II with appliqué armour and sand shields in situ. One of the small number of IBYs delivered in 1944-45 but not used in action. Note the HVSS. A remaining example is preserved on the playing fields at Bovington. Interesting Sherman IIA was one of relatively few delivered to the British. Note T23 type turret.



Above, left to right: Sherman VC Firefly with 17 pdr gun. Sherman IIIAY showing HVSS. Less well-known was the VIIC, an M4A6 with 17 pdr. All C models had the bow machine gun removed and often carried a front stowage box.

SPECIALISED EQUIPMENT

As in US Army service the British Sherman was used as a tracked mount for various devices. Some of them only reached the prototype stage, but the experience gained from the development of these vehicles was utilised in the construction of better models. Again some of these specialised equipments only saw limited service. A big factor in the limited use of the Sherman in this field was the top priority given to them as gun tanks. This part of the Sherman story is an attempt to summarise all the various equipments and devices that were used on this vehicle.

SELF PROPELLED GUNS

SP 3 inch MIO: US 3 inch Gun Motor Carriage MIO, Wolverine.

SP 17 pdr MIO: US MIO modified by the British to mount a 17 pdr gun and called Achilles.

Priest I: US 105 mm howitzer Motor Gun Carriage M7.

SP 25 pdr Sexton: This vehicle was fundamentally a Grizzly I tank (US M4A1) chassis mounting a QF 25 pdr gun, the first pilot model being built in Canada in late 1942. The earlier vehicles had the three-piece bolted differential housing and later vehicles the cast one-piece sharp nosed differential housing and various modifications.

AA 20 mm Quad Skink: A modified Grizzly I (M4A1) which had a specially designed turret mounting four Polsten 20 mm Mk I machine guns. One pilot model shipped to England in 1944. Limited production only. WD number of the pilot model CT-163931.

Ram II OP: This was a modified Ram II designed to serve the role of an armoured observation post or of a command vehicle. It was fitted with the necessary wireless equipment, carried a crew of 6, and was fitted with a dummy gun. Canadian WD numbers of these vehicles were CT-202113 to CT-202136, and CT-205122 to CT-205181.

Sherman OP: Similar to Ram II, various marks converted.

Priest OP: Adapted as armoured observation post with gun removed.

Sexton GPO: Gun removed and equipped with additional wireless equipment plus Tannoy control unit, etc, for use as Gun Position Officer vehicle (Artillery).

RECOVERY VEHICLES

Sherman III, ARV Mk I and Sherman V, ARV Mk I: Turretless recovery vehicles. British conversions.

Sherman V, ARV Mk II: Fabricated turret, dummy gun, winch and lifting gear. British conversion.

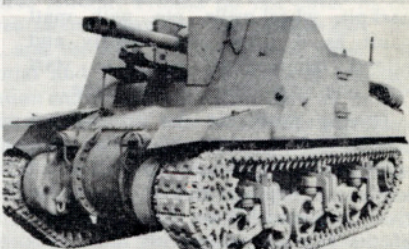
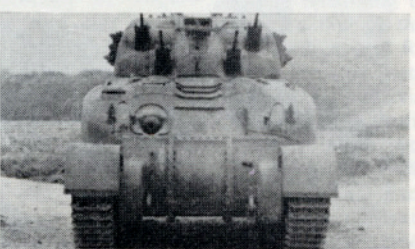
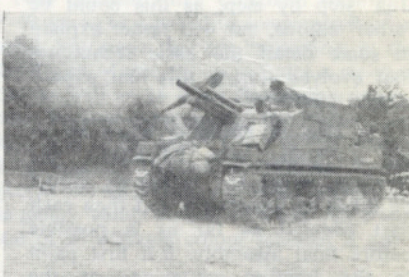
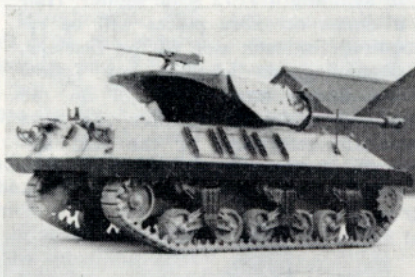
Sherman IIA (M32), ARV Mk III: American conversion with winch and jib fitted and 81 mm mortar carried on the front glacis plate. These were standard US vehicles taken over by the British.

Ram II ARV: Early Ram II conversion with dummy gun.

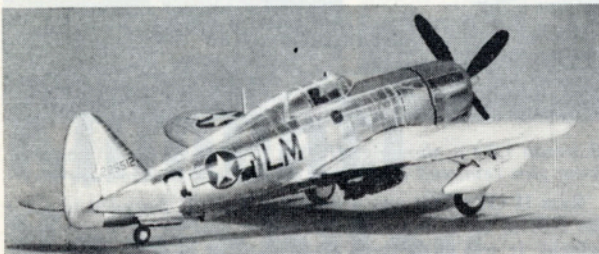
Sherman BARV: Beach Armoured Recovery Vehicle. British conversion. Normal Sherman chassis with armoured superstructure and waterproofing for deep wading. Equipped with recovery equipment.

Two versions, one with high superstructure, and the other with square turret and tall box vent.

(Continued next month)



Top row, left to right: Sherman V, ARV Mk II with jib erected. M10 Achilles with 17 pdr. A Priest used by the Canadians at Normandy with non-standard side extensions. Priests were replaced by Sextons in 21 Army Group soon after D-Day. **Above, left to right:** Sherman IVC—compare nose with VC at top of page. Skink AA tank. An early Sexton—later models had one-piece sharp nose and return rollers mounted behind bogies.



Stuart Ross made this Airfix P-47D 'Penrod and Sam' in only three evenings' work using the new Metalskin covering to depict the natural metal finish of the original. In this article he discusses a suggested technique.

METALISED FINISHES

Stuart Ross investigates a new covering for plastic kits

ANYONE who has laboured in vain to create a life-like metallic finish on model Starfighters, Mustangs and Mitchells will be interested to learn of a new material intended to do just that. New to this country and marketed especially for modelers, it is called 'Metalskin'—a self-adhesive paper laminated to a fractionally thin sheet of metal which, when peeled from its backing paper and applied in small panels to a plastic model, can give a realistic impression of the semi-polished duralumin skinning used on real planes.

My first use of Metalskin was on the recently-issued Airfix Republic P-47D Thunderbolt—a beautifully produced kit which, despite its many curvaceous lines, was a 'natural' for the task in hand. I will not relate the method of skinning I used on the 'Jug' step by step, as this could be rather tedious, but will rather explain in some detail the basic techniques that evolved during this first experimental effort.

For ease of handling when covering a model with Metalskin, the fuselage, wings and tailplanes should be made up separately and then each part covered as far as is possible before final assembly. But first paint in the interior colourings of the cockpit, wheel-wells, etc, with matt paint as it dries very rapidly and allows construction work to start with the minimum of lost time.

Having made up the fuselage, it can be left to dry whilst the other components are made up. When all joints are dry, remove the moulded rivet and panel lines from one side of the fuselage only with fine sandpaper, wiping away the dusty residue and leaving the surface clean and smooth for the skinning operation. By smoothing one side at a time,

the remaining moulded details may be used as a guide in cutting panels to shape and in positioning them on the smooth side. Thus, when one half of the fuselage has been fully skinned and detailed, the other half can be sanded down and skinned, copying this time the pattern from the skinned side.

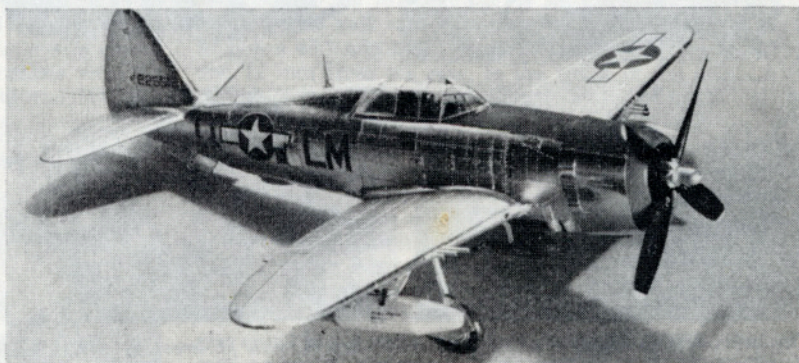
Cutting Metalskin is like cutting thickish paper so, for the finest slicing possible, a single-edged razor-blade or craft knife makes the handiest tool. Don't forget to have a thick piece of cardboard as a cutting board and use a steel ruler for straight cuts. Scissors can, of course, be used to fashion curved pieces and the material will not harm or blunt the blades.

Small panels of Metalskin, probably no larger than 1 inch by $\frac{1}{2}$ inch are the most convenient size in skinning a 1:72 scale fighter. Half a dozen or more pieces will be required for each side of the fuselage, depending on whether you follow the simple moulded detail on the plastic model or whether you have picture references of the real aircraft. If the latter is the case, more detail will be apparent in the photo-

graphs, allowing skilled modellers to copy all the surface markings down to the last rivet.

Once a panel has been cut, a steady hand and a sharp blade are required to part the Metalskin from its protective backing paper. At first this can be quite tricky, especially on small bits, but one soon learns the knack without damaging the skin. With the backing paper away and the adhesive side laid bare, the panel is held between the fingers and laid lightly on the model in the correct position. Smooth the skin over the fuselage contours with the fingertips—preferably covered with a handkerchief to minimise marking the metal surface, until the adhesive bond is tight. Finally, the panel should be burnished all over by rubbing the rounded wooden end of a small paintbrush backwards and forwards in one direction. Any surplus skin can now be trimmed off with a blade and the cut edges burnished down.

Compound curved portions of a model are best skinned in smaller pieces of material, cutting the panel to fit the shape when it is actually in position; any small creases that



Another view of the completed P-47D model showing the impeccable finish which can be obtained by careful covering.

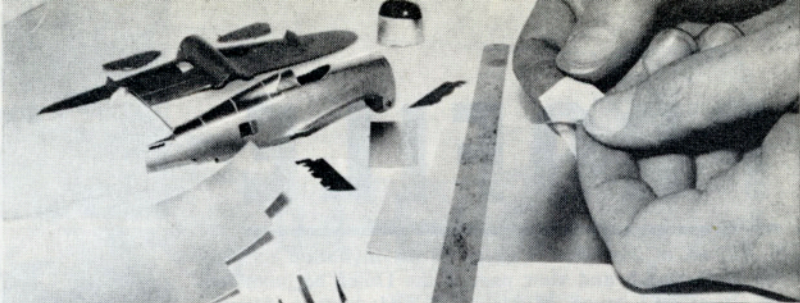
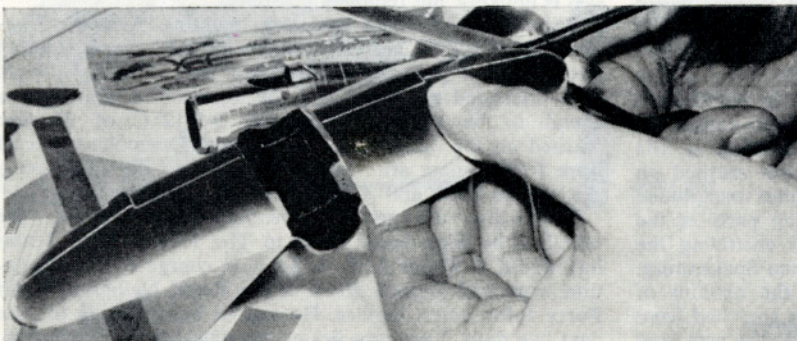
develop can usually be flattened by finger pressure and burnishing. One by one, the cut panels are positioned by butting them up to each other until the joints are merely hairlines on the surface. With the last one in place and the trimming completed you can begin the process of marking the intermediate panel and rivet lines on to the Metalskin.

Hold the fuselage steady by blocking it up with Plasticine or put it between the folds of a soft cloth. In scribing the fine detail I find that a pair of dividers makes an effective tool not only because the fine steel point is able to etch in the tiniest detail but that they are useful for transferring dimensions from plans, pictures or the moulded detail on the model. Avoid freehand work as much as possible as it tends to look untidy on the finished model and the use of a slim straight edge of steel or plastic is recommended.

To add more realism, utilise the grain on Metalskin by turning a panel in relation to its neighbour to produce a slightly different texture of metal as can be seen on most natural finish aircraft. This trick is also very effective when overlaying tiny inspection panels, ammunition hatches, cowling gills and the like.

It may happen that, when removing a panel that has been burnished down hard and is spoiled in some way, the metal lamination strips away, leaving the adhesive paper base still attached to the model. This can usually be prised off complete without damage to the surrounding panels if one corner is lifted and the piece slowly pulled away. Should any adhesive remain on the model, a waste bit of Metalskin can be pressed 'sticky side on' to the gummy spots and lifted up and down until all the offending adhesive has transferred

Scissors are used to trim excess skin from curved tips and trailing edges. Excess at leading edge is turned under and trimmed at convenient spar line.



Top: Cutting Metalskin panels with a sharp blade and steel ruler. Ensure panels fit accurately before removing backing paper. **Above:** Butt the shaped panels together and burnish joints and panels with end of paint brush.

itself to the Metalskin.

To finish the fuselage, some very thin strips about $1\frac{1}{2}$ inch long by $\frac{1}{16}$ inch wide can be cut for the cockpit canopy framing. This length is necessary for easy handling and a direct cut when the strip is in place is the best way of ensuring neat joints. Even though the strips are almost hair-like, it will be found that they adhere well and, if roughly positioned, can be gently pushed into place with the fingernail. Finally, any small plastic mouldings such as propellers, exhaust ports, radio masts, tailwheel, guns, etc, are added, having previously been painted in their appropriate colours. At this stage it may be opportune to paint in or attach some of the more awkwardly placed transfers and

insignia instead of waiting until the final assembly is completed.

For the wings, there is a choice of two different covering methods, although in both cases the left and right wing halves should be skinned independently of each other. In the first method, having sanded one wing on both top and underside, the whole can be covered by one piece which has been cut slightly oversize all round. For the neatest join, the ailerons and flaps on the underside of the wing are covered first, pulling the Metalskin tight over the trailing edge and smoothing it forward over the upper surfaces towards the leading edge. Having made certain that the skin on the top of the wing is flat and clear of air bumps, the remaining skin is rolled tightly round and under the leading edge and pushed back to the already skinned flaps and ailerons. A few neat cuts at the hinge line will make the joint hardly noticeable.

This method is fine on a wing that has a straight edged planform, but with curved wings it may be better to follow the style of skinning used on the fuselage and build up the surface with a number of panels. Doing this may take a little longer, but it is probably easier and more effective in the long run. One word of warning, do not make joints meet at the leading edge as this may cause

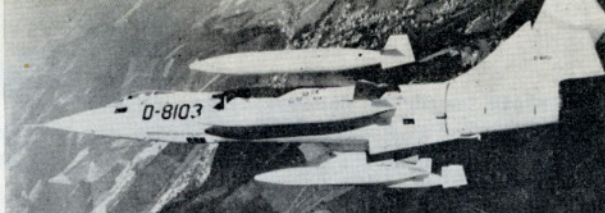
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PROFILE

IN August of last year I accepted an invitation to visit the Netherlands and view part of the Dutch aeronautical scene. It offered much of historical and current interest. Of the past I was able to see material evidence. I toured the Fokker factory, the RNethAF showed me a cross-section of its present equipment and I briefly looked in on KLM. From my tour I was naturally able to return with impressions, and ideas for an assortment of models with a Dutch flavour.

Wishing to sample a modern packet ship I sailed in SS *Avalon* to the Hook. Compared with the old cross-Channel steamers *Avalon* seems large and lavish, a sort of miniature *Canberra*. Her paint scheme marks the breakaway from long standing white and black of BR steamers, for her hull is bright blue, superstructure white. The black/red funnel carries the white BR motif. She set me thinking how fine a model of a ship this size would look in OO railway scale. *Avalon* rode out the stormiest night of the summer extremely well.

An electric train whisked me to Rotterdam. If ships interest you then Rotterdam Docks are a 'must'. You can tour them by launch visiting Waalhaven, frequent target



Top to bottom: A Lockheed RF-104G in light grey overall finish, in the hands of 306 Squadron, Twenthe. The triple windows of the camera bay can be seen ahead of the wing tank shadow. A grey-green-grey RF-104G of 306 Sqn making a fast get-away from Twenthe. Fin carries the squadron crest. A grey TF-104G of 'The Dutch Masters', the unit responsible for training F-104 pilots. A red triangle with a black hat appears on its fin above the serial.

A trip to the Netherlands

for low-level RAF day raids and scene of spectacular Blenheim attacks and disasters. The giant dock area is the world's busiest.

My journey next took me to Utrecht and from there I travelled to Baarn (near Soesterburg, a base for Hunters and F-102s) where I stayed with a Dutch family. We associate Holland with flat farmland, windmills, flowers, black and white cows, dykes and the Zuider Zee. They are all to be found around Baarn—I could see them from the windows of the flat—but it was the sandy woodland around the Royal Palace that really set me thinking. This was so reminiscent of the Breckland which I always associate with the Wellingtons and Stirlings of long ago. Mention of the latter reminds me of my closing remarks in last month's Profile.

No, I didn't see a Stirling, but my Dutch friends recently did. It was not intact, but large sections of it were easily recognisable including the serial number BF383. My host in Holland was Gerrie J. Zwanenburg, whose interest in the recovery of the wreckage of aircraft brought down in the Zuider Zee (or more correctly IJsselmeer) is well-known. Luck was largely out for me, I saw no Stirlings—indeed no wreckage. Work had commenced on unearthing a 103 Squadron Wellington 1c (T2996:PM-C) which crashed on June 11/12, 1941, at Zwaagdyk, near Hoorn, but unexploded bombs aboard made a visit unwise. Draining parts of the IJsselmeer means building walls (or dykes) encircling the new polder, some work being visible now from Spakenburg. When the water is out, and even before, the remains of many wartime tragedies appear and parts are snatched from the ooze. This work is done mainly to render the new land

safe for farming, but equally important is the opportunity to eliminate 'missing without trace' as the epitaph for many airmen. The Zuider Zee offered a relatively safe entry and exit free of ground defences, but many crippled aircraft fell here and near by.

'This is where a 341 Sqn Spitfire TD359:GW-A came down, a P-38 was found there and a B-24,' said Gerrie. Off Juident an He 115 has been recovered, near Marken W5371:PH-X a 12 Sqn Wellington II fell. In the Oostelyk Flevoland a Ju 88, B-17, Lancaster ED357, a first war Gotha G.IV, and a Hampden have been found. Just beyond the new polder, off Lelystad BF383:WP-H was retrieved. She came down on April 27, 1943, yet her paintwork was still preserved. Her twin tailwheels were retrieved still inflated. Parts of the tail of this Stirling have been shipped to Britain. So, the answer to the question 'Shall we yet see a Stirling?'—it is unlikely, but remotely possible.

Beautifully preserved are some remains. A fabric fragment from T2996 perfectly retains its dark earth doping. Even wooden parts of a Mosquito have been recovered. This interested me much, for the ammunition aboard was found to be German. Lancaster R5512:C of 97 Sqn crashed on the outskirts of Amsterdam. Documents aboard were found intact after 20 years almost to the day, also a silk escape map and a small working compass.

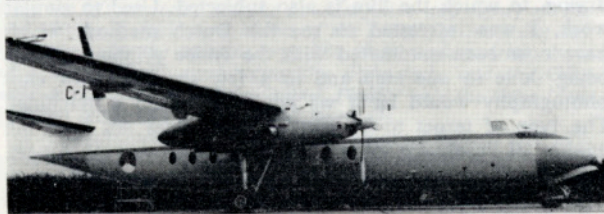
'Tomorrow we go to Ypenburg,' said Gerrie. We travelled by high speed train to The Hague. Here I was introduced to Major A. P. de Jong, in charge of the excavation work and Deputy Head of the Royal Netherlands Air Force Information Service. He was to be my guide for the next two days. Ypenburg lies on the outskirts of The Hague,

near Delft. On roads alongside, Ju 52s landed on May 10, 1940, but nothing remains to be seen! Major de Jong told me that some months later the Germans flew some off the road.

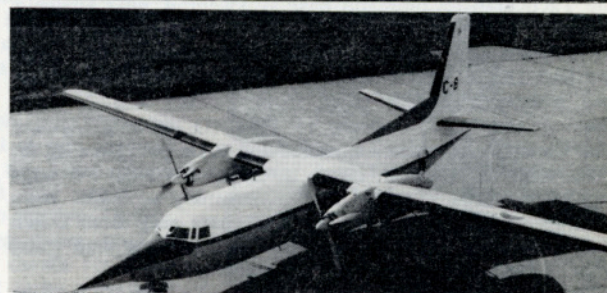
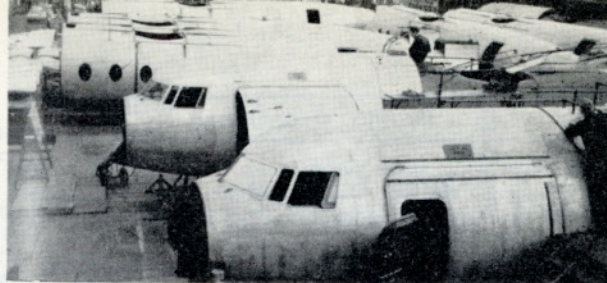
Ypenburg proved a fascinating place. First we visited No 334 Squadron which operates three Friendships and nine Troopships two of which are presently on loan to KLM and one has become Flipper which has the nose radome and radar of the F-104 for training purposes. Stationed at Ypenburg also were some Beavers and Piper Super Cubs. These are camouflaged brown and green overall with white codings. The Beavers (ex L-20s) have dayglo trim. The Squadron Commander, Major W. Mayer, was clearly devoted to his F.27s which are without doubt very fine aeroplanes. On the previous day he had brought Her Majesty Queen Juliana home from a holiday in Italy in Friendship C-1 and, thinking this would be an ideal model subject, I studied the aircraft in some detail.

Externally the aircraft is basically light glossy grey in finish with white fuselage top and vertical tail surfaces. The fin fillet, under section of the fuselage tail cone, nose and wing tips are painted in rich red dayglo, it has a royal blue cheat line and grey propeller blades. Lettering is black, likewise the anti-dazzle panel. Internally the aircraft is divided into two cabins, the rear of which seats 20 paired each side. The walls are cream, the ceiling mid-blue. The floor carpet is deep blue, as also are the window curtains. Along the aisle is a strip of grey carpet. Right aft is the baggage store, ahead of which on the starboard side is the toilet compartment.

The forward cabin is set aside for Royal use. On the starboard side four seats (paired) are placed around a walnut surfaced table the surfaces of which fold upwards to reveal mirrors. Along the port side is a settee. The cabin roof is grey, the walls blue interrupted by three porthole windows on either side of the aircraft. All seats in the aircraft were covered in mid-brown leather. A baggage compartment is situated between the cabins, with one compartment to either side of the aisle, faced in netting. Forward



Top: Amongst the treasure I brought back from Holland was this picture of a B-17G-10-DL, 42-37737:LL-X, of 91 BG, based at Basingbourn in 1943. It was forced to land at Broekland, near Apeldoorn on October 10, 1943. Finish: olive drab (dark green tint) with dark grey underside; medium grey codes aft of national insignia; white fin triangle bearing mid grey-blue 'A' repeated above wing tip as usual. Lemon-yellow fin serial. LL-X was one of 30 B-17s lost on Oct 10, 1943, during attacks on Enschede, Koesfeld and Münster. **Above:** The Royal Fokker Friendship described in this article, photographed August 29, 1966.



Top: The Friendship production line at Schiphol on August 31, 1966. In the foreground are two Combiplanes. Note cargo door. Well over 400 F.27s have now been ordered.

Above: C-8 was awaiting delivery to the Air Force during my visit to Holland, after the addition of an 'F-104 radome' to its nose. Its colouring otherwise was as for the other Troopships, and it had orange dayglo areas. Note white area over wing centre section/cabin.

of the Royal suite, pantries are placed on either side of the aisle. A crew of three fly the machine, with the pilot in the port seat, navigator in the starboard and radio operator behind. C-1, 2, 3 have double nosewheel steering for training purposes, the second two aircraft being 32 seaters.

In order to compare C-1 with the other F.27 Troopships Sgt Major Dales took me aboard C-4 which was externally similar but for its dull orange dayglo. It has one long cabin with grey walls, roof and hand luggage racks. Side seats for 37 backed with fawn webbing are installed for troops or paratroopers. The uncarpeted 'green metal' floor is fitted with lashing points. Large cargo doors forward and aft on the port side are features of the Troopship, which also has a special parachute guard aft of the rear door. Another large cargo door is placed aft on the starboard side. The fins of these machines carry the squadron crest, a disc vertically divided into light blue port and dark blue starboard halves with a white Pegasus superimposed. Both versions had black de-icing leading edges to the wing and tail.

Ypenburg is also home for Base Flight and 300 Army Squadron, equipped with Alouette III. The Alouette II (now withdrawn) was long employed on ASR work, H-5 being on stand-by during my visit. All the Alouette IIIs have glossy dark khaki-green paintwork and white numbering (A for Army and H on the others preceding the number). H-5, dark glossy grey with red dayglo panels beneath the nose and amidships, and on its rotor roots, figured in the rescue of a Russian from a ship and two German fliers, feats denoted on the nose by three white figures. The tail rotor blades were striped red and white, while the tail bumper was yellow. Canvas panniers were fitted on each side of the aircraft. Alouette IIIs have similar dayglo areas also painted on their fins.

Many visiting military aircraft are seen at Ypenburg. Those I saw included a silver and white VC-47A, 0-23966, and a Luftwaffe T-33A, BD-840, camouflaged green and grey with silver under surfaces. It had orange dayglo tip

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Profile — continued

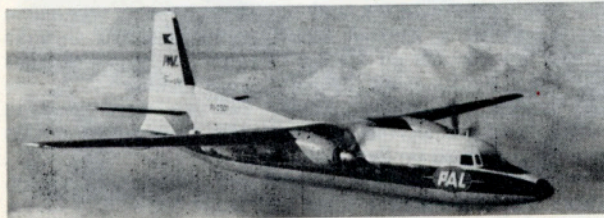
tanks and a white stripe across its fin. The red stripe around the fuselage lining up with the turbine blade was retained in American style. Under the rear fuselage was target towing gear.

Next day we travelled along the international highway to the Tactical Air Command base at Twenthe, near Hengelo. It is the home of 306 Squadron which operates about 20 RF-104G Starfighters and which in December, 1962, was the first Dutch unit to receive them. The Dutch Air Force has received 95 F/RF-104s from Fokker and 25 from Fiat. In addition it operates 15 TF-104G two-seat trainers. The Dutch have not encountered the same problems as the Luftwaffe. Possibly the latter's troubles arise from the large number of 104s operated, for maintaining so many must pose considerable problems. In four years only three Dutch 104s have been lost, and these to other reasons than those which have plagued the German machines.

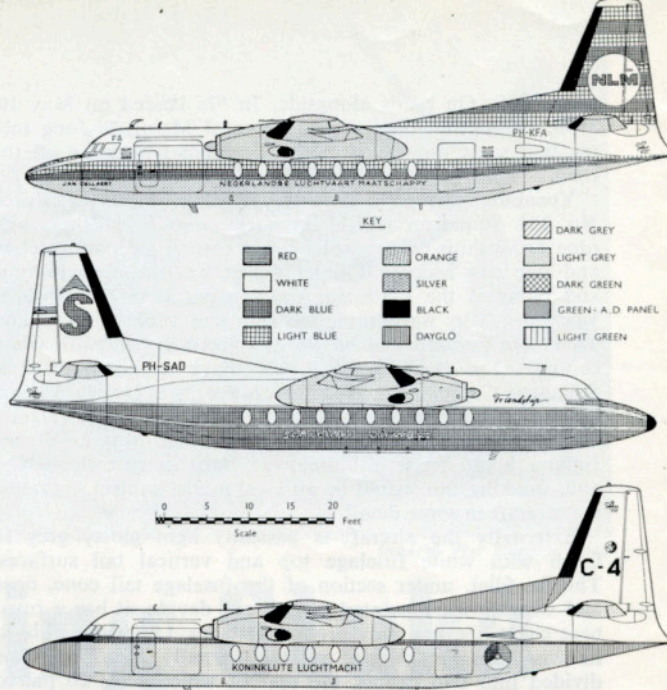
First I went to see the Base Commander, veteran navigator of No. 18 (Dutch) RAAF Sqn flying B-25s, a greying exuberant personality quick to show me how well the Germans had built the base HQ. Its walls were a good two feet thick, and armour plate shutters closed over the windows. Nevertheless the RAF straffing the Bf 110s of III/NJG 1 based here had managed to get a shot through the plating, visible still. The buildings were planned to resemble farm houses and sited amongst trees. The mess—which went then under the name of Hermann Goering Casino and is now Prince Bernhard Casino—also provided moments of interest as we tucked into ham and eggs 'and bread with everything,' the latter being a staple item of Dutch feeding. I found a little less formality in the RNeth-AF than in the RAF, but then everyone seemed to know everyone else! My own welcome I can merely say was 'quite overcoming.'

Soon I was out by the runway to see the squealing Starfighters coming and going in connection with their role as high speed low level reconnaissance fighters. Both RFs and TFs were busy. The home-built machines have serials beginning D-8015 whereas those from Fiat commence D-6650. The TF-104Gs (serials beginning D-5800) belonged to 'The Dutch Masters', the F-104 conversion unit also based here, and its all-grey aircraft have a red fin triangle upon which a black schoolmaster's hat is painted. 306's machines have a dark blue/light blue disc with white stars and a fawn eagle, the motif dating back to its F-86K days which ended in 1963 but are recalled by an F-86K mounted near the station entrance.

Some of the RF-104s have dark green and dark grey upper surfaces, eg, D-8107. All the serials were black, on the nose and beneath the fin crests. RF-104 noses were a greenish grey. All were carrying four long-range tanks, and



PI-C501 of Philippine Airlines in the usual grey/white scheme with dark blue/red/white trim, a colour scheme which would look good applied to an Airfix Friendship model.

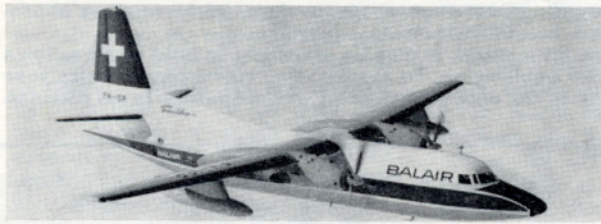
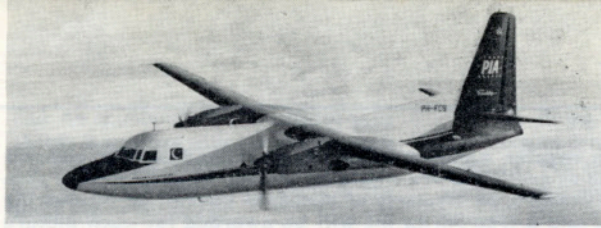


Top to bottom: PH-FKA, one of the two Fokker F-27 Troopships on loan to NLM (a subsidiary of KLM) for internal services. Note the large forward door which is retained. NLM operate these aircraft on the understanding that in a few hours they can be converted back to air force requirements. Operator's name, lettering, blue except for 'Fokker F.27'. A standard F.27 Friendship of Schreiner Airways, a frequent sight at many European airfields. Yellow cheat lines on lower fuselage. SCHREINER AIRWAYS in white. Fokker F.27 Troopship of No 334 Sqn recorded at Ypenburg in August, 1966.

all had arrester hooks.

I spent the afternoon with the squadron and was given a superb 'teach-in' on the Starfighter. Sitting in the cockpit of D-6667 (camouflaged) I could see that the wings look even smaller than they are, but the all-round view was excellent. Next I watched the turn round of an RF-104. The film magazine was taken from the small box-like housing for the three cameras. Film development was at over 100 degrees F. Then I saw the printing process using a conventional enlarger and special paper. The latter was dry-developed and fixed, although for permanent filing fixing in a fixer solution would take place prior to very high temperature drying, to which the film is also subjected. Used to similar work, I was interested to see the Dutch methods which have now been automated with the entire printing process being done in one step and in a few seconds. How easy photography would be if we could all afford a machine! The type of target to be photographed does not need the quality of resolution of a high altitude picture of course, the subject, anyway, appearing large on the negative.

The following day found me at Schiphol where first I went to the Fokker factory still busy making Friendships and concentrating on the Series 400 Combiplane and the Quick Change cargo-passenger versions of which Ansett has just taken delivery. These aircraft have a 91½ inch x 70 inch upward hinging nose cargo door. A Pakistan Airlines machine headed the assembly line followed by one for Indian Airlines. The former was white and silver, with light green trim, whilst the latter had the same basic colouring with red-white-blue trim. On the production lines could be seen Nos 215 for Gulf Aviation and 216 for Ansett—both



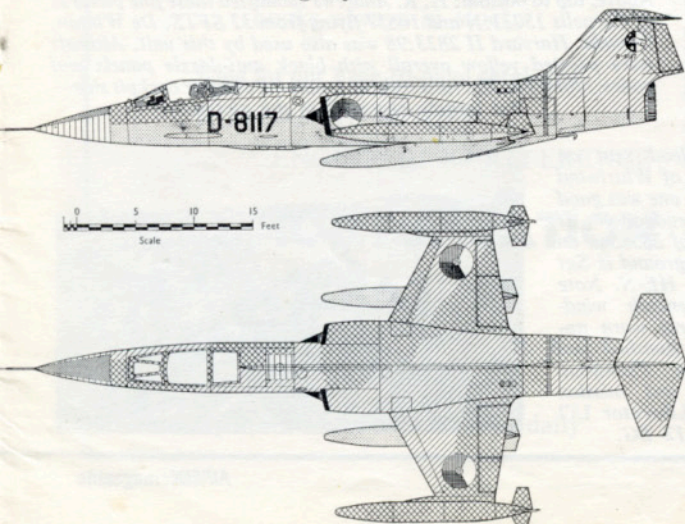
Top: A Pakistan F.27 headed the production line when the author visited Fokker. Finish is white with light grey wings, nacelles, and under fuselage, and light sea green trim. **Above:** Straightforward colour scheme for the Airfix Friendship would be white/grey with red-black-white trim of the Swiss operator Balair.

Combiplanes. At the time of my visit 401 F.27s had been ordered by 98 customers in 35 countries affording many possible finishes for the Airfix model.

Since F-104 production ended in May, 1965, Fokker has been increasingly concerned with its F.28 Phantom jet airliner intended for short and medium stages and smaller than the BAC-111. The first fuselage was well advanced for its test flight this year. The F.28 seems a wide aeroplane and I found the mock-up cabin extremely roomy. My guide, Mr Scwing, the well-known glider pilot, pointed out that at the time one F.28 was firmly on order—one more than when the F.27 was at a similar stage, and this was a good omen. I was surprised to find three more fuselages advanced. Water pressure tank tests were about to begin and Fokker had working a nearly complete hydraulics system. This fascinating item simulated full-scale flap and undercarriage working, and tests to embrace 20,000 flights each of six minutes duration were being made to search for data on endurance and malfunctions. Like the F.27, the F.28 has Rolls-Royce engines and looks like being an aeroplane with a good future.

KLM had, on August 29, commenced operating for two **Below:** Lockheed RF-104G D-8117 of No 306 Sqn RNethAF as recorded at Twenthe in August, 1966. D-8117 had only one roundel (above the port wing) and one below the starboard, although some Dutch F-104s have two as depicted in this drawing. For colour key see top of page 260.

Drawings by A. M. Alderson.



years two F.27 Troopships fitted with civilian seating, etc, on their first internal services. The machines on loan were previously C-9 and C-11 which have become PH-KFA and 'B, whose colourings are illustrated.

KLM's latest acquisition, its DC-9-10s, had lately been introduced to service. Four were in use and two more delivered in 1966. This year the first five DC-9-30s with longer fuselages will reach Schiphol. KLM uses its DC-9s on the longer routes, eg, Amsterdam to Cairo, Venice, Rome and Tripoli. Their paint scheme follows the usual KLM style. The airline also operates DC-7F and DC-8F freighters, DC-8-30s and 50s, Lockheed Electras, and is phasing out Viscounts. Schiphol airport was undergoing very major changes. It will have a new central terminal building of most imposing size and appearance. New runways have been built to a tangential pattern around it, and the plans have been made to suit 1965 requirements. KLM have an interest in three Concorde, and have modified their original airport plans to cope with these jumbo jets.

I left Holland, a country where the British are always made extremely welcome, with the impression I had previously formed. I had found again a very hard working little country concentrating on certain lines and making a very fine job of them. If only Britain and the British could adapt themselves to such ways and industry on a like scale, life here would be much more rewarding for us all.

Michael J. F. Bowyer

The author acknowledges his gratitude for facilities to the Royal Netherlands Air Force; Major A. P. de Jong, RNethAF; Fokker; Royal Dutch Air Lines, and Herr Engelman, their PRO at Schiphol.

Military modelling — continued

on display there, if you need a photograph. Finally the turret of the JSI is identical to that for the JS2 which was described in the January issue.

Several variations exist for the turrets of the KV2. That shown by the scale drawing is a late production version, earlier ones having a plan shape similar to the KVIA turret. There is little external difference to distinguish between the 122 mm and the 152 howitzers. I built two models, one with a turret built up from card and the other with a solid balsa turret covered by plastic card. The first was more successful as the cement deformed the thin plastic card used on the second.

Painting of all these models is in the standard Red Army yellowy olive drab. Markings of any type were almost non-existent, certainly no more than numbering with a red star rarely displayed. During the winter when tanks had to fight in the snow they were given a coat of whitewash over the basic colour—this effect is best achieved by overpainting with white poster paint.

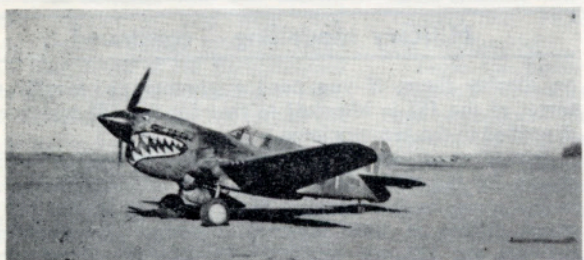
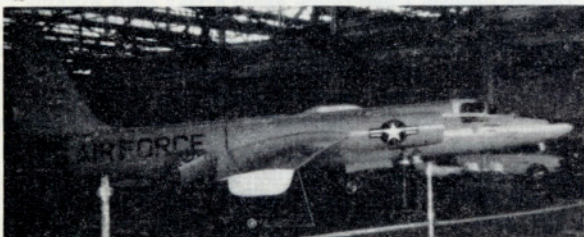
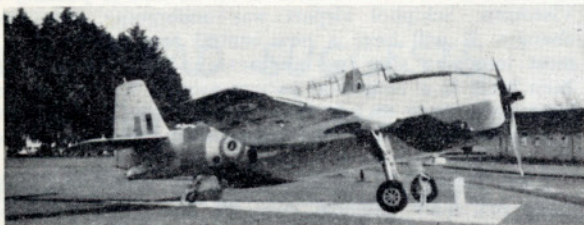
Many KV tanks were used by the Germans, particularly KV2s. These captured vehicles can be quite interesting as they were usually covered in German crosses.



KV85 model with balsa turret and fuel tanks on track covers.

photoPAGE

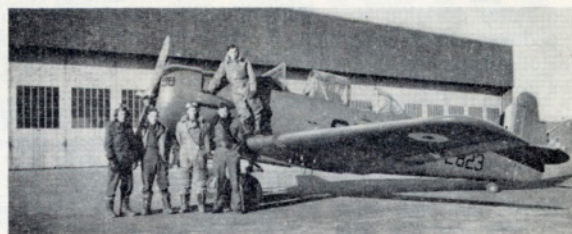
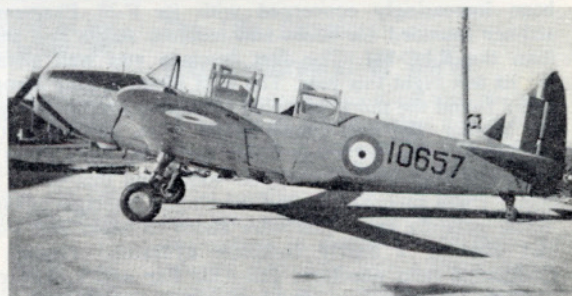
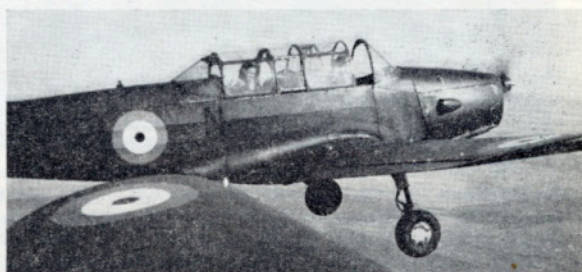
Mixed bag from readers this month includes a selection of trainers and rare views from Italy and the Middle East. Captions by **Michael J. F. Bowyer**.



Above, top to bottom: Particularly interesting finish for the Airfix Grumman Avenger is suggested by this fine view of RNZAF Avenger NZ2504 target tug. Aircraft is silver with black and yellow under surface stripes and yellow 'T' bands. Note black anti-dazzle panel and fern-leaf in roundel. Picture by David Coom. Lockheed U-2, 66714, was photographed at Laverton, Australia, by Robin Green. Finish is light specular grey with black codes and red stripe on wing trailing edge. Squadron unknown, but aircraft was used for weather recce flights. Kittyhawk of 112 Squadron, Desert Air Force, photographed by John A. Thompson.

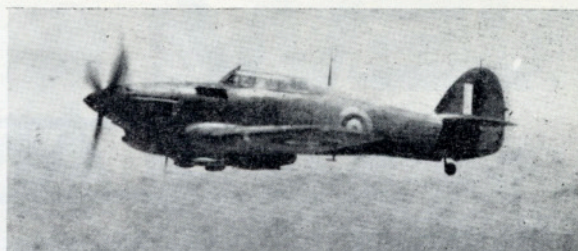


Right: B. Macleod sent an interesting batch of Whirlwind pictures, but only one was good enough for reproduction. It shows 'A' flight of 263 Sqn on dispersal. In foreground is Sgt Ridley's aircraft HE-N. Note pilot's name beneath windscreen and general worn appearance. **Left:** Another picture from John Thompson shows artwork and mission tallies (ten) on Liberator Lil Abner of 12 BG.

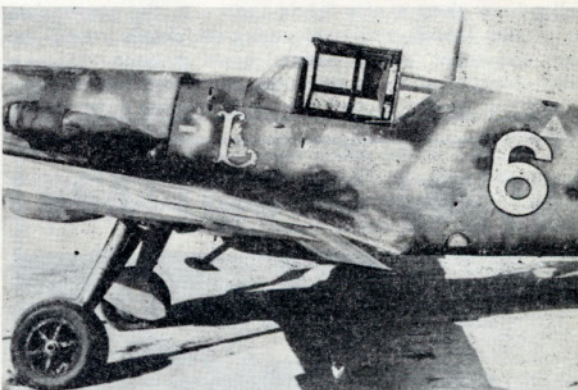
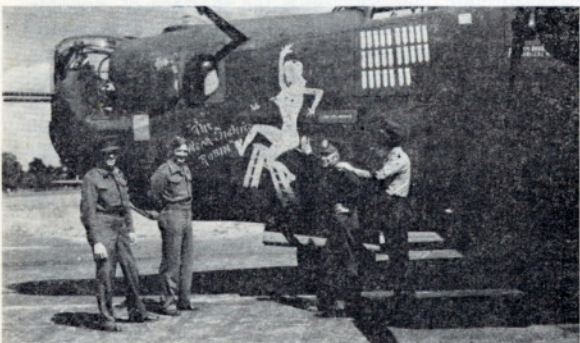
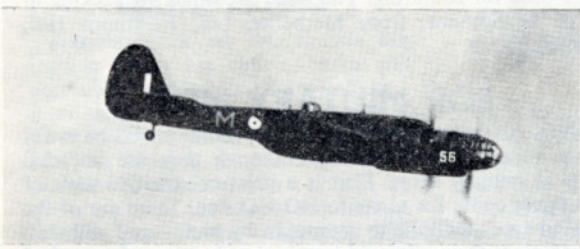


Above, top to bottom: H. R. Andrews submitted these fine pictures of Cornells 15021:N and 10657 flying from 32 SFTS, De Winton, Canada. Harvard II 2823:98 was also used by this unit. Aircraft were painted yellow overall with black anti-dazzle panels and codes. Note that Harvard code 98 is painted on after cockpit side—but largely obscured in the picture.



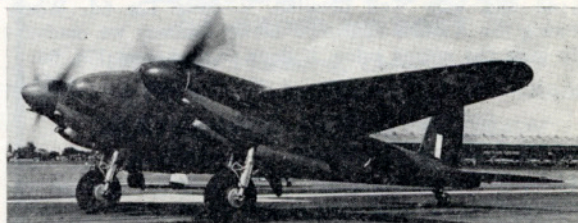
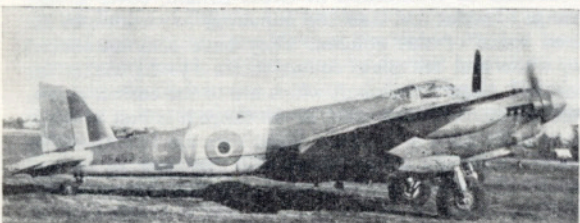


Above, left: Wintry scene in North Italy, 1944, shows an Argus and a Hurricane, coded Z, of 237 Sqn—so far as we know the first photo published of an aircraft of this squadron. Above, right: Hurricane I V7649 used by the CO of 237 Sqn in 1942 over East Africa. Note Vokes filter and exhaust shields. Below, left: Maryland, possibly of 233 Sqn, over the Suez Canal in 1941. Below, right: A Gotha Go 242, DQ + AX, in the Western Desert in 1942. All these pictures are from D. Rigby.



Above: More Liberator artwork on The Near Sighted Robin. Aircraft is a BVI (B-24H-15-DT), 41-20850. It comes from D. Reeves. The PT-17s are USAAF basic trainers at Terrell Field, Texas, in 1943. They are silver with yellow wings and tails. Picture by T. C. Hamilton.

Above: Beautiful close-up of Bf 109F is also from D. Rigby. Aircraft belongs to 1/LG2. Line-up of Anson trainers in Canada shows N9603:C3 nearest. Colour scheme is green-brown/yellow with white codes. Photo by R. Crumbley.



Above: Contrast in Mosquitos. BXVI of 180 Sqn, PF463:EV-V, has deep blue codes and grey-green/grey finish. It was photographed by Michael Smith at Treviso, Northern Italy, in 1946. The T3, TW117:Z was flying with 3 CAACU Exeter, before preservation for the RAF Museum. Picture by L. Hunt.

NEW

KITS AND MODELS

FRENCH TRI-MOTOR

LATEST Heller release available in this country is a departure from their current Musee series though it is, in fact, even more of a museum piece than this firm's World War 2 range. It's a pleasing replica of the Couzinet Arc-en-Ciel (Rainbow) tri-motor built for Mermoz's record trans-atlantic crossing in the mid-thirties and the kit captures very well the sleek reptilian look of the original with its big spatted undercarriage, huge high-aspect ratio wings and streamlined, almost prehensile, tail.

By current standards the kit is none too ambitious and our sample had a good deal of flash, moulding faults and some badly fitting parts, though nothing that could not be overcome by judicious use of file and body putty. Cockpit windows were a particularly poor fit and we would advise anyone building the kit to substitute Polyglaze for the offending transparencies, though happily the cabin windows are satisfactory.

Heller have given a nice fabric texture to the appropriate areas of this model, and rivet and grille details round the engines and other 'metal' covered areas is quite neat. An excellent transfer sheet is provided, complete with rainbow and tri-colour flashes, though this needs matting down before application.

With attention to the points we've mentioned an attractive model results, and at 1:75 scale it fits nicely with 1:72 scale collections. Our sample was supplied by BMW Models of Wimbledon, who hold stocks. Price is 15s 11d. C.O.E.



Heller's Rainbow tri-motor, available from BMW Models of Wimbledon.

COBRA COPTER

THE Aurora Cobra Copter—the Bell UH-1B—which we reviewed in detail in our August, 1966, issue is now generally available from model stockists in Britain. Scaled at 1:48 and very well detailed, it costs 12s 6d. When reviewing the Aurora Spartacus kit in January we inadvertently gave the wrong price; it does, in fact, cost 17s. 6d. C.O.E.

NEW FROM BELLONA

YET another military accessory to OO/HO scale has been added to the Bellona range. This is a British type pillbox which features an interesting gimmick in the form of a removable roof, allowing infantrymen and machine gunners, etc, to be placed inside at will by the wargamer. In addition, the roof can be removed when the pillbox has been 'destroyed' by gunfire or bombs, thus adding a good degree of realism to a miniature

battlefield. Suitable for both world war periods, it could also—with only a little modelling 'licence'—be used for armies other than British. It looks excellent with Airfix figures and comes on a base with a dugout as an 'extra'. The parts are moulded in plastic and are cut out with scissors. Ordinary plastic paints can be used for colouring. The price is 3s plus 9d packing in UK or 1s overseas, from Merberlen Ltd, Hawthorn Hill, Bracknell, Berks. C.O.E.

FOR MILITARY MEN

NEW accessories in the Roco Minitanks range will be useful to quite a lot of modellers, though they are intended mainly as military items. First is a pressure sensitive sheet of white turret codes for tanks to OO/HO size. These are of the stencilled type—difficult to reproduce by hand—and will thus be welcomed. Our only criticism is the shortage of 'noughts' though there is a generous helping of other digits from one to nine. We expected these numbers to be transferable like Blick, but this didn't appear to be the case and we found the best method of transfer to be by a pin or point of a craft knife. A second sheet in the same pack featured assorted strips of black/yellow warning marks intended for dozer blades and bumpers on engineer vehicles. But obviously they have many other applications particularly for model railway enthusiasts. The pack costs 1s from Roco stockists.

The second item is a pack of do-it-yourself fir trees for scenic work. These are moulded in plastic in plug-together sections, allowing about six big trees (or a greater number of small ones) to be assembled as desired. Nicely detailed, they are good value for 1s 11d. C.O.E.

THIS MONTH'S TRANSFERS

MODELLERS will be delighted to know that at last a manufacturer has seen fit to produce an accurate series of squadron codes and serials for British fighter aircraft of World War 2 in the correct colours and styles. Similarly the Luftwaffe and USAAF aircraft enthusiast has not been forgotten and there is now quite a large range of codes of different sizes and colours available in the American HisAirDec range to suit them.

The latest issues from this company, which will be stocked by BMW Models of Wimbledon in Great Britain, cover a very wide range of styles and sizes too numerous to mention in the restricted space of this column. They have also introduced yellow, white and red plain colour sheets $3\frac{1}{2} \times 5\frac{1}{2}$ inches for German and American aircraft which are to the correct shade. As there are so many new items in the range it is best to order by size in millimetres and colour. Sheet sizes are $3\frac{1}{2} \times 5\frac{1}{2}$ inches and $7 \times 5\frac{1}{2}$ inches for larger letters and they cost 3s 6d and 7s respectively. Watch BMW's adverts in this magazine for availability.

Another new firm that has recently joined the field is that of J. Stoppel of Denmark. BMW Models hold a small stock of Danish markings which are the first introductions from this company. Four sizes of roundels and tail flashes are printed

on the same sheet which retails for 3s 6d. The markings are of the shiny variety but this should not deter anyone too much as most present day Danish aircraft are finished in a gloss or semi-gloss scheme. The sheet, though on the expensive side, can be considered good value as these are the only markings of the kind available.

The French ABT company has produced an excellent 3s 6d sheet of transfers for 33 Escadre of the French Air Force which includes markings for an F-5 Lightning flown by Capt A. De Saint-Exupery, a P-51K Mustang of 2/33 'Savoie' and a Mirage IIIR of Escadron III/33 'Moselle'. Both the Mustang and Lightning can be built with only minor modifications from the standard Airfix kits though the Mirage IIIR will need quite extensive surgery. These markings will delight the enthusiast because they are very well detailed and would be almost impossible to better by hand painting. BMW Models of Wimbledon also stock this sheet. *A.W.H.*

BLOCH 174 FROM HELLER

THE latest release by the French Heller company in their 1:72 scale Musée series is a Bloch 174 reconnaissance aircraft of the type which equipped certain French units immediately before the armistice in 1940. The model is supplied with markings for an aircraft in the 33 Escadre de Reconnaissance which has the characteristic 'bird in a ring' motif for its unit insignia.

This is a well made kit and, with the exception of the tail unit joints, goes well together. Detailing is reasonable and accurate. There are 47 parts moulded in a light grey plastic. No gimmicks are featured, but one slight innovation is interesting and worthy of note for other manufacturers. The undercarriage doors, which in the down position are split on each side of the wheel well, are moulded together so that if the modeller wishes to finish the aircraft with its wheels in the up position there's no need for the sometimes difficult operation of sticking both halves together. A simple knife cut will produce two doors for assembly in the alternative down position.

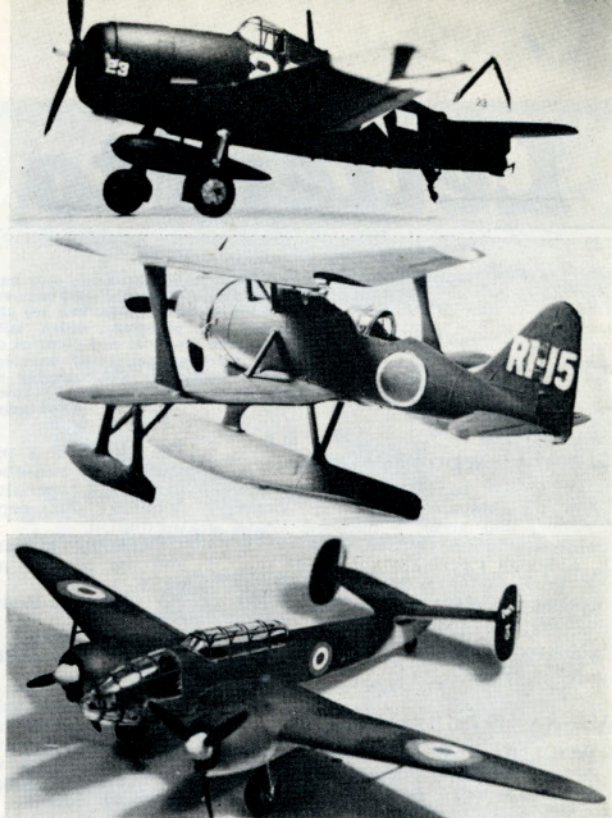
Heller could well afford to improve the standard of their transfers as these are of the shiny variety and typical of other kits in this series which have been reviewed previously. This is a satisfactory model, well up to contemporary kit standards. It retails for 15s 11d and can be obtained from BMW Models of Wimbledon who supplied our sample. *A.W.H.*

FROM JAPAN VIA HOLLAND

WE recently received a parcel of Japanese kits from the Dutch importer M. Hodde. These included the Nitto Kate and Twin Mustang, the Fujimi Hellcat, the Hasegawa Pete and the Tamiya Val. Readers will probably remember seeing advertisements for these kits in recent issues.

We couldn't build them all in time for this month's review, but of those inspected the Tamiya D3A1 Val dive bomber was the best. Reproduced in 1:50 scale, this kit is very accurately detailed and is in all respects an admirable piece of moulding. The detail is exceptionally fine, particularly in the case of the twin cockpits which have all the instruments neatly depicted in relief on the cockpit sides and panel. There are 70 parts and provision is made for an electric motor to be built into the fuselage to make the airscrew rotate. The trapeze for the fuselage mounted bomb release works, as do the tailplane elevators. The price is 17s.

The two models which did not meet with top favour were those manufactured by Nitto. On the whole the Kate was reasonable though there were details which could be improved, but the Twin-Mustang was a bit of a shocker! Have you tried



Above: Fujimi's Hellcat, Hasegawa's Pete, and the Heller Bloch 174.

making this aircraft from two ordinary P-51 Mustang kits? A glance at an accurate plan will reveal that the fuselage is longer and almost entirely different in character. Nitto have not looked hard enough and to our amazement offer alternative parts in the box to make up either two P-51s or the Twin-Mustang version using the same fuselage sections. Needless to say both are inaccurate. The two Nitto models are to 1:75 scale and retail at 7s each.

The Fujimi 1:70 scale Hellcat is another model that is open to a little criticism, but here the problem can be solved by some rather drastic plastic surgery. Both the cockpit canopy and leading edge of the fin are inaccurate and need revising. The model is, however, well detailed and the remaining parts fit well together to make a pleasing model. Retail price is 7s.

The last kit in the selection was a 1:75 scale model of the Mitsubishi F1M2 Pete by Hasegawa. In outline shape this one is accurate but the moulding is terribly heavy and reminiscent of the earliest efforts of the plastic kit manufacturers. Fine detail is completely lacking and large locating holes appear for the various struts and supports of this biplane. This should not worry the serious modeller as it can be remedied and, apart from the heavy detail, we thought the kit a very nice one. Retail price is 7s.

One other item from Holland was a sample of the 5s TKK Mabuchi baby motors for motorising Japanese or other aircraft kits. These very small motors which measure $1\frac{1}{8}$ inches in length and $\frac{1}{2}$ inch in diameter work really well on a penlight battery and it is worth trying one out in a 1:72 scale model just for the fun of seeing the prop revolve!

Apart from the kits reviewed here, M. Hodde's current list shows several other items that should appeal to modellers. Address to which orders should be sent is M. Hodde (Almaro-Import) Lex Althoffstraat 24, Amsterdam, Holland and all remittances should be by an international money order. *A.W.H.*

Letters to the Editor

Letters to the Editor can only be answered in the magazine. Readers whose letters are published each receive a free Airfix plastic construction kit of their choice. We are always pleased to receive your comments and pictures, which will be considered for publication. Submitted material and pictures can only be returned if accompanied by a stamped addressed envelope, and the Editor cannot accept responsibility for safe keeping of any such contributions, neither does he necessarily agree with comments expressed by correspondents in the letters columns.

Other viewpoints

I HAVE just read Mr Oliver's remarks in the January edition of AIRFIX magazine, that about a third of letters published give no help to modellers at all. Although I generally agree with this, I do think that it gives other modellers a general idea about other people's views and what models are wanted.

D. Plant, London, SW11.

PS: I do hope Mr Oliver will forgive me for this useless letter!

Wrong unit

I WOULD like to bring to your notice a mistake in the February edition of AIRFIX magazine. I am referring to the excellent account on the new Andover aircraft at RAF Abingdon. Underneath a photograph is written 'Note the crest of the Unit already applied to the tail.' This is not the Operational Conversion Unit crest, it is the crest of Number 46 Squadron.

I know plenty of people who would like a kit of the Andover, by the way.

Paul Goatley, Abingdon, Berks.

Easy destroyer . . .

READERS may be interested in an easy warship conversion. This is HMS *Hereward*, which was completed with the prototype twin 4.7 inch gun mounting. This is taken from a HMS *Cossack* kit, and put in 'B' position. The model is completed with the pennant number H93 instead of the one in the kit. This prototype mounting was removed in 1937.

G. H. Loud, Burnham, Somerset.

. . . and another

RECENTLY while looking back through my old AIRFIX magazines I found an article on converting the Airfix model of HMS *Hotspur* into other destroyers (August 1964). At home I have a photo of HMS *Greyhound* and as this destroyer was not covered in the article I thought other readers might like the following description so as to enable them to make it.

Firstly, it is very similar to the *Hotspur* model but differences are as follows: *Greyhound* has a 'Charlie Noble' type steam pipe on the forward funnel and has Carley floats onboard of the bridge wings but these are fixed vertically and not as on the other models. It has multiple 0.5 inch machine guns as per the kit but there appears to be a D/F loop also on the gun platform.

The aftermast is replaced by an ensign stump-mast and also there is a spreader for the w/t aerials. Lastly 'Y' gun is removed and depth-charge apparatus substituted.

Colouring appears to be dark grey and the pennant numbers HO5 are in white.

Nigel D. Rodway, Andover, Hants.

Theatrical bent

I AGREE with Mr Walton about Gilbert and Sullivan opera figures. Many of my school friends like Gilbert and Sullivan operas.

I also think it would be worthwhile for Airfix to bring out some famous theatrical figures. I am certain they would be most popular with many model makers.

David Richardson, Hull, Yorks.

Painting wheel hubs

I HAVE just completed the Airfix model of a DH 88 Comet Racer and I feel sure that I am not the only one who has had difficulty in painting the central wheel discs accurately on a wheel which comes in one piece. I found, however, that if you first paint the entire wheel matt black and allow it to dry, and then take a thin brush with plenty of paint on it and allow one drop of paint to drip from the brush on to the centre of the wheel, due to gravity the paint spreads out and forms a perfectly circular wheel disc.

M. J. Kilshaw, Chester.

Photopage news

WITH reference to your photograph on page 181 of the January issue illustrating two Harvards which have you stumped for unit identity, I wonder whether you would be interested in the following:

From my log book I can confirm that Harvard FT283 was at 21 FTS, Snitterfield, for the first half of 1946 since I flew this machine for 50 minutes of circuits and bumps on June 20 of that year. I do not think your photograph was taken at that time, however, because I am sure our aeroplanes were then sprayed yellow all over except for a black anti-dazzle panel on the top of the fuselage ahead of the windscreen. Moreover from some photographs I have, our machines at that time bore four letter code references, three of these reading FAOK, FANF, and FKNF. The last mentioned machine was serialised KF684, but I cannot

identify the numbers on the other photographs.

I also have a photograph of Harvard KF610 wearing two large identification letters AB. This machine is camouflaged all over with yellow undersides and it has a yellow band around the fuselage with a small identification letter B on the cowl, all as in your photograph. I believe my particular picture of KF160 was taken at Church Lawford in 1947 and I think it would be a good guess to say that AE and AP in your picture were Church Lawford based and photographed during the same period. Your historical enthusiasts might be able to throw more light on this and indeed they may well be able to confirm that Training Command aeroplanes changed to the camouflage scheme to which I have referred after being all yellow in 1946.

From my log book other Harvards I flew whilst training with 21 FTS during May, June and July, 1946, had serials as follows: KF230; KF264; KF286; KF308; KF335; KF417; KF425; FX156; FX291; FX350; FX356; FX421; FT156; FT283; FT383; FT440; and FS898.

H. Ayers, Bedford.

TA half-tracks

THE M3 half-track was still in use as late as 1955 in the Territorial Army and the following notes may be of interest to modellers.

These vehicles were held in a pool and were issued to units successively throughout the training season, so no permanent unit signs were carried. However, Divisional and Tac signs were sometimes issued printed on gummed paper and these were stuck on as a temporary measure. The vehicle registration number was carried on both sides of the bonnet and on the rear offside chassis, underneath the door. An actual number of this time was 52BN04, white figures on a long black rectangle.

The Company or Platoon allocation was frequently chalked on the sides and rear doors, so modellers striving for realism could paint on, for example, 'A Coy', 'MMG' or 'A/TK'. The lettering should not be too neat!

The M3 can be used as a towing vehicle for the 6 pounder anti-tank gun instead of the Bren carrier as supplied in the Airfix kit.

The carrier's chief limitation as a 6 pounder towing vehicle was lack of space for both the five gun numbers and the 32 rounds of ammunition normally carried, plus the hundred and one other items.

Vehicles used in the infantry as a

AIRFIX magazine

towing vehicle for the 6 pounder included the 3 tonner, 30 cwt. Morris Portee (designed for the 2 pounder), the 6 pounder flat portee, M3, Bren carrier and the Jeep.

The latter vehicle was certainly used in Italy in 1944 for this task and modellers intending to use this combination should note that it was necessary to remove the spade tips from the 6 pounder because of the low towing hook. Over rough country the spade tips would catch on the ground with results that could be imagined. The Jeep was, of course, grossly overloaded with the kit required for battle, apart from the 5 man crew and driver.

Experienced modellers should have no difficulty in portraying these items which include eight ammunition boxes, two of which were carried on the front bumper, gun toolbox, jerrican of petrol and water can, 2 inch mortar and ammunition, Bren gun and box of magazines, two camouflage nets, and (carried on the trail) a length of corrugated iron.

Finally the gun should be fitted with a muzzle cover and breech cover when being towed.

A. J. Moore, Liverpool 22.

Ex-BUA

FURTHER to K. A. Snape's letter in the February AIRFIX magazine, Hibernian Airlines Dakota 3 EI-APB was previously G-AMWV, belonging to British United (Channel Islands) Airways Ltd., and was delivered at Dublin on April 7, 1966.

G. M. Cox, Grantham, Lincs.

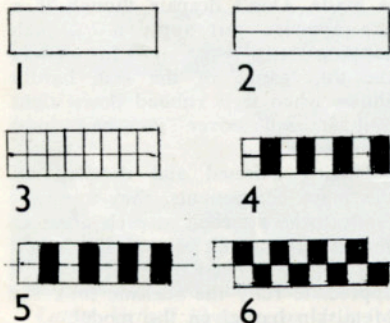
Squadron checks

I THOUGHT readers would be interested in this tip. One of the most difficult jobs in paint conversions is checks for squadron and unit markings, etc. I solved this by the following method. I have used this successfully myself on the Lightning and it works very well.

Start with a piece of transfer the required size or overpaint a spare transfer sheet in the lighter colour (1). Rule off lightly the length in pencil (2) and then breadth (3). Paint the darker colour across every other strip (4). This is easily done. Then cut carefully in the middle (5) and slide the bottom (or top) strip along one place (6). Any trimming can now be done with a razor blade.

P. J. Macguire, Comrie, Perth.

Reader Macguire's methods for making checks are sketched below.—EDITOR.



March, 1967

Sturmtyger

BEING a military modeller who is very fond of making German AFVs, I was particularly interested in the Sturmtyger conversion.

However, on attempting it, I found I had difficulty in reproducing the actual mortar barrel, as the article is rather vague on this point. I finally struck on using the centre section of a P-47D drop tank, which appears to be the right size and diameter for the job. This may be a useful tip for other modellers who have found difficulty over this point.

As to the subject of Dogfight Doubles, could not tanks be produced in the same way, with a Panther and Sherman, for example, in a box, and selling at a reduced price. This would be a great help to maniac conversion fiends like myself.

Congratulations on a really great magazine. Robert Turner, London, SE4.

Lady's view

WITH regard to Mr Walton's letter in the November edition of the magazine, I should like to express interest in his idea for Gilbert and Sullivan figures. I have been a devotee of G and S for many years, and also of Airfix, and should love a combination of the two.

I would also like to say how much I enjoy Airfix aircraft kits and other models.

The Superfortress afforded me many hours of enjoyment, and so have the many other models (about 90) that my fiancé and I have made over the last year or two.

Thank you for an interesting magazine and detailed kits.

(Miss) P. Morris, London, NW9.

Those DUKWs

IN reading the book *The Secret War*, by Gerald Pawle, I came across mention of the fire-fighting DUKWs as in Richard Masters' letter. These DUKWs were specially equipped with 100 foot Merryweather telescopic steel turntable ladders in order to facilitate the scaling of cliffs. The ladders were considerably lightened, and were fitted with twin machine guns and armour plating at the top. They could be used as a convenient beach-to-cliff top telephone, as well as for numerous other tasks. As to how many of these ingenious conversions were completed, the book is not specific, but apparently the factory was afterwards hit by a bomb.

W. Hicks, South Croydon, Surrey.

We would like to thank the several other readers who wrote to us on this subject with the same information.—EDITOR.

410 conversion

I ALWAYS read with great interest your excellent articles on kit conversions, particularly those relating to aircraft, and I thought perhaps you might be interested in one or two of my efforts, the photographs of which I enclose herewith.

Of most interest to readers may be the view of my Me 410 which I produced about 12 months ago. A kit of this particular aircraft was not available at the time so I attempted a conversion on the Airfix Me 110D, using the engines, etc., of two Me 109G kits. Quite an

expensive conversion, I think you will agree, but in many respects I feel that this looks more like the real thing than one built 'straight from the box' of this aircraft which is now available.

As one can appreciate the modifications necessary were considerable, but in the main a new nose and cockpit is required together with new tail fin and rudder, engines from the 109G, new tips and modification to the wings and tailplane. As can be seen from the photograph I chose the Me 410B-2/UI variant, using a spare underwing gun pack from a 1:48 scale Fw 190A kit.

K. Edwards, IPMS, Staplehurst, Kent.



Top: The fine Me 410B-2/UI made from Airfix parts by Mr Edwards. Above: From the same hands comes this Me 110G-4/R7 conversion.

Prussian uniforms

THERE are several inaccuracies made by Mr Emery (September) in his letter on Prussian uniforms. He states that both tunic and trousers were dark blue, but in fact trousers were white in summer and black with a red stripe in winter. Tunic cuffs and piping were red, although collars and epaulettes were of regimental colours. Helmets were black leather with a brass eagle plate and spike (Humbrol gold will do for these). All leather fittings were black, including boots and belts. Packs were brown leather with grey or olive drab blanket roll. Several innovations can be used to make an interesting Prussian army. Helmets can be painted white to represent white covers worn by the Shutzen (Sharpshooter) companies.

Jäger or light infantry wore a dark green tunic, with red facings, black trousers with a red stripe, and black leather equipment. Their headgear was a shako. This can be obtained by altering a Foreign Legion head so that the kepi tapers inwards from the peak to the crown, and then fixing the head into position on a Prussian body.

N. A. Mansfield, Cambridge.

Matador matters

FURTHER to the article by C. O. Ellis in the September AIRFIX magazine, a few notes on present-day Matadors might be in order.

Ten-ton cargo trucks now have steel body sides and ends, the sides being of four-bay construction and the ends two-bay. In each case the inside face is flush.

Continued on next page

Letters—continued

Cab roofs, though still domed, have lost their battens and hatch positions are fitted with opening hatches. Typical registration numbers carried are 77AE07 and 71AV86.

The RAF roundel is still carried, as is the Command/Group coding in white—F (Fighter), B (Bomber), V (Transport), S (Signals), M (Maintenance), T (Flying Training), H (Technical Training), C (Coastal), followed by a Group number where applicable.

Registration numbers are carried on civilian type plates, and unit crests sometimes appear on cab doors.

F. A. Chown, Braunton, Devon.

Military hints

THE following tips might be of some interest to keen military modellers:

(1) The technique of 'finger painting' can be used with plastic cement instead of paint. For example, a tank doesn't have the machine-finished smoothness of a model. By smearing cement on with your fingers you can approximate the roughness of the real-life thing.

(2) George Bradford, who publishes 'AFV Newsletter' in Canada, recently provided a painting suggestion that should be of interest. To get the blurring effect of, say, German camouflage, you follow up your painting with another brush using clear thinners. This takes a bit of experimentation for the effect you want but with a little practice on an old model, you can learn the technique.

(3) Spray cans of matt white paint are ideal for applying winter whitewash camouflage to army vehicles.

(4) The German army used to bedeck their tanks with flags for the guidance of their own pilots. More specifically, a flag would be draped across the turret. Flags can easily be made from old toothpaste or shaving cream tubes. A multiplicity of other uses come to mind for old tubes: canvas rolls for tanks, canvas sheet stretched from a tank as a night bivouac, etc.

H. R. W. Morrison, Ontario, Canada.

Civvy half-track

WHILE on holiday on the East Coast, near Mundesley, nine miles south of Cromer, I discovered three M3 half-tracks working on the beach, being used to carry 20 ft oak piles for the construction of the sea wall. The front roller and machine gun cupola had been removed, and the driver's cabin had a metal roof.

P. S. Kilner, Glen Parva, Leics.

Goodbye Mr Burke!

WHILE looking through the January issue of AIRFIX magazine, I was amused to read Mr J. Burke's letter concerning the prices of Airfix kits. It seems pennies mean a lot in England these days. If Mr Burke lived in Eire he would have to pay, for instance, 3s for a Thunderbolt, and right up to 22s 6d for a Superfortress. Even at these prices I find Airfix kits excellent value. Good-bye Mr Burke!

Aidan McCarthy, Cork, Eire.

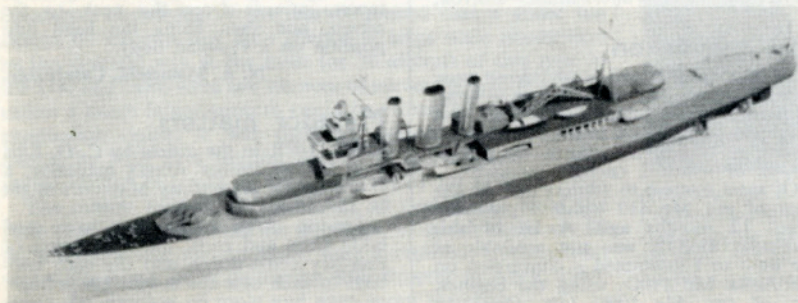
The seventh 'Devonshire' — continued

by painting in the order brown, red, blue and white.

If the cruiser in its fully armed version is preferred, the 8 inch guns are all mounted and Fig 4 is a sketch of the rear upper deck, which is quite different from the training cruiser. All the 4 inch guns are carried and the aft superstructure modelled as in Fig 4. Radar 'lanterns' are installed on the bridge top and on a small tower just aft of the rear funnel. Quadruple pom-poms from a *Cossack* kit are mounted on top of 'B' and 'X' turrets in screens. The catapult is needed for this model, although I used one from

an *Ajax* kit, complete with its circular turntable. Both cranes are carried and the layout of this ship can be seen in the other scale drawing. The aircraft can be used or omitted as desired. In 1943, the period chosen, this vessel was camouflaged and the design is given on the drawing. The basic colour appears to be light grey with sky blue areas. By 1945, 'X' turret had been landed and two quadruple pom-poms substituted. The camouflage now was a dark rectangle, probably washed out green, on the ship's side over light grey paint, and this outline is given on the training cruiser scale drawing.

The completed model of HMS Devonshire as a training cruiser in 1953.



Metal Finish—continued

the material to lift under the tension imposed. The oversize skin at the wingtips is pressed together until the outline of the plastic shape underneath is quite apparent. Taking a pair of sharp scissors, the excess is sheared off using the hard plastic of the model as a guide for cutting. For most of the way round the tip the top and bottom skins will be welded together by the scissor cut but towards the leading edge the skins may part fractionally and it is necessary to fill in the slight parting with thick silver paint.

Having covered and burnished down one wing, the detail can be taken from the uncovered wing half and impressed with the scribe into the skinned surfaces. Following this, the other half of the wing is sanded smooth and the process of covering repeated. Where indentations such as landing wheel wells occur, press in the skin until the shape of the depression clearly shows and, with a thin sliver or razor blade or a sharp knife, trim out the unwanted skin using the plastic sides of the recess as a guide for accurate cutting.

The tailplanes are best covered in one piece on 1:72 scale models, so cut a length of skin that will wrap over both top and bottom surfaces and place one tailplane half on it. Fold the skin backwards until the edges meet at the trailing edge, pinch the skin layers together until a clear impression of the tailplane shape appears and scissor off the excess. The cut you make will probably be mostly around the trailing edge and will weld the skin together neatly.

Try to keep a straight edge to the Metalskin at the wing and tail roots, for it is here that an untidy joint may occur when the final assembly is made. Don't despair though if a gap appears, just apply a $\frac{1}{16}$ inch capping strip over it—fortunately the thin gauge of the skin hardly shows when it is rubbed down tight and it will cover the bad joint completely.

Having skinned and detailed all the main components, they are now ready to be attached to each other as shown in the kit directions. When this stage has been reached, you will appreciate fully the realistic look the Metalskin has given the model.

AIRFIX magazine



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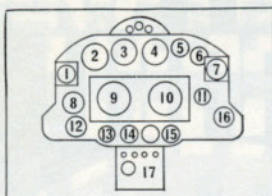


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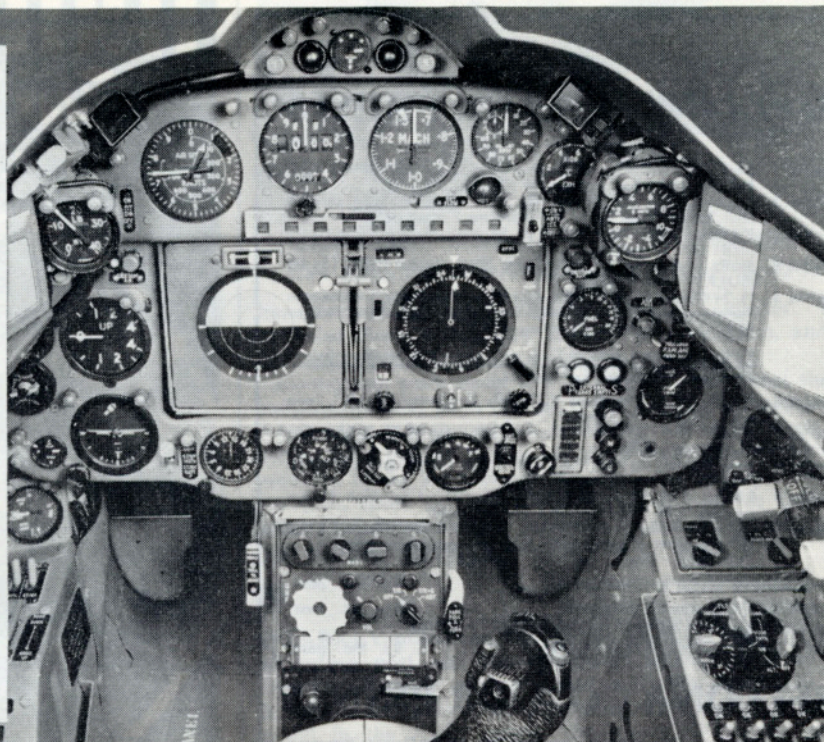
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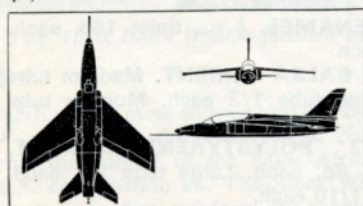
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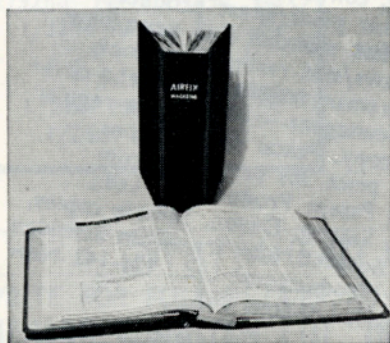
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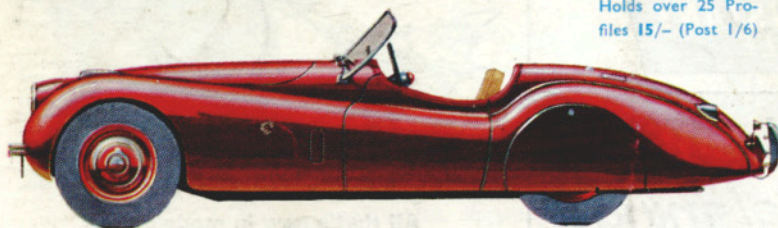
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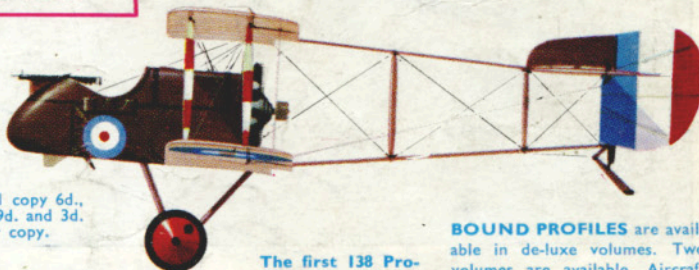
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